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For the

# Love of Learning


Background Papers for the Royal Commission on Learning

Pour

# l'amour d'apprendre

Documents de base pour la Commission royale sur l'éducation

Volume I



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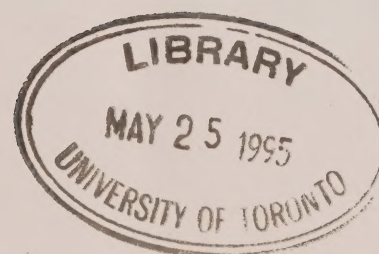
Documents de base pour la Commission royale sur l'éducation

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Toronto, Ontario  
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Volume I

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The Royal Commission on Learning released its final report, ***For the Love of Learning***, in January, 1995. Throughout the 20 months of the inquiry, the Commission had background papers prepared in areas where additional information was needed. These papers, prepared by authors external to the Commission, supplemented the work of the in-house research staff. Most of the papers were prepared under contract, but the faculty and graduate students of York University's Faculty of Education generously contributed a collection of 14 papers on diversity and equity in education. A summary of these 14 York University papers is included here.

The compiled papers are made available so that members of the education community and the public may access some of the background material that informed the Commission's work. The papers appear in the language and form in which they were submitted: they have not been edited. An abstract, presented in both languages, precedes each paper.

The volume groups the papers by topic, as follows:

- the context of education
- vision
- curriculum
- language
- equity
- assessment and accountability
- teacher education
- community
- governance and organization

The Commission expresses appreciation to all those who prepared background papers. Their work in pulling together a wealth of research and scholarly writing was of great value in the deliberations of the Commission.



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**An Introduction to Aspects of the  
History of Public Schooling  
in Ontario, 1840-1990**

**Rebecca Priegert Coulter**

1994

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**Coulter, Rebecca Priegert.**

*An Introduction to Aspects of the History of Public Schooling in Ontario, 1840-1990, 1994.*  
(*Introduction aux aspects de l'histoire des écoles publiques en Ontario, 1840-1990*), 1994.

“Like all history, the history of schooling in Ontario is being constantly rewritten and revised.” Coulter provides a critical examination of the changing views about Ontario education for the past 150 years. First, she outlines what has been written, from the more orthodox, earlier treatments to revisionist and social control perspectives, and views that stress societal conflict over the values and purposes of education.

From the time of Confederation, the Ontario school system was firmly established as one where the province exercised centralized administrative control, but exercised that power in a delicate tension with local authorities. School inspectors ensured the standardization of curriculum, textbooks and teachers. Education in Ontario has not substantially wavered from this model except to become more centralized with the consolidation of the school boards in the late 1960s. However, although a superficial view of education in Ontario might lead one to the conclusion that changes were done in harmony and by consensus, in two domains there have been serious conflicts: religion (Catholic education) and language (francophone and heritage language).

At the heart of the debates is the issue of the purpose of education. Viewpoints vary: moral uplift, good citizenship, homogeneity of the community, preparation for work (and for global competitiveness), etc. Most people agree that schools are important places for preparing youth for life and work. The disagreements are about the kind of character development, the form of citizenship, and the kind of work education. “The question has been whether we want to create young people who will fit seamlessly into the existing society or whether we want graduates who will challenge their world and work for change” (p.31).

\* \* \* \* \*

«Comme pour tout historique, celui de l'enseignement en Ontario est l'objet de révisions constantes.» Madame Coulter fait un examen critique de l'évolution des théories éducatives en Ontario au cours des 150 dernières années. Elle donne tout d'abord un aperçu de ce qui a été écrit sur la question, allant des premières théories plus orthodoxes aux perspectives révisionnistes et à celles prônant le contrôle social, en passant par celles qui mettent davantage l'accent sur les conflits de société plutôt que sur les objectifs et valeurs propres à l'éducation.

Depuis la création du Canada moderne, le système d'éducation en Ontario repose sur le concept de contrôle administratif centralisé exercé par la province. Cette dernière exerce cependant ce contrôle dans un contexte d'équilibre précaire avec les autorités locales. Les inspecteurs assuraient la standardisation du programme d'études, des manuels scolaires et des enseignantes et enseignants. L'éducation en Ontario ne s'est guère éloignée de ce modèle, si ce n'est qu'elle est devenue plus centralisée de par le regroupement des conseils scolaires à la fin des années 1960. Bien qu'une étude superficielle de l'éducation en Ontario puisse laisser croire que les changements se sont opérés dans l'harmonie et par consensus, il n'en reste pas moins que deux domaines ont été caractérisés par de graves conflits: la religion (l'éducation catholique) et la langue (langue française et langues d'origine).

Le but de l'éducation est au coeur du débat. Les opinions varient: s'agit-il de renforcer les valeurs morales, de produire des citoyennes et citoyens responsables, d'assurer l'homogénéité de la communauté, de préparer au monde du travail (et à la concurrence mondiale) et ainsi de suite? La majeure partie des gens reconnaissent que les écoles sont le lieu où l'on prépare les jeunes à la vie et au monde du travail. Cependant, c'est sur le type de personnalité qu'il faut développer, sur la nature du civisme et sur le type de préparation au monde du travail que les opinions divergent. «Le problème est de savoir si l'on veut produire des jeunes qui s'inséreront à la société existante sans la remettre en question ou des diplômés qui remettront la société et le monde du travail en question.» (p. 31)





“...to understand our educational past is at least to hope to act more intelligently and humanely in the present.”

Alison Prentice, 1977, p. 7

Like all history, the history of schooling in Ontario is being constantly re-written and revised. At various times, scholars have seen the history of schooling as one of continuity and co-operation or one of change and conflict. While the earliest histories documented what was seen as the glorious growth and progress of schooling (Phillips, 1957; Johnson, 1968), more recent histories have adopted a critical and revisionist stance (Wilson, 1984). From the 1970s on, historians have explored the ways in which schools acted as agents of social control (Mattingly and Katz, 1975; Prentice, 1977; Davey, 1978; Houston, 1978) and were developed as part of the process of state formation (Curtis, 1988 and 1992). In the last few years, educational history has begun to emphasize the ways in which historical actors outside of the official power structures have used schooling for their own purposes and have been in conflict with educational authorities and governments over educational issues. However, Gaffield and Bouchard (1989) argue,

the character and variety of educational projects as they developed among women, men, and children in different social, ethnic, and regional groups remain largely unexplored at least partly because Ontario's public school system continues to be often seen (despite the growth of social history) as “The House that Ryerson Built.” (p. 208)

Despite this pessimistic assessment of the current possibilities for a new educational history of Ontario, enough has been written to allow us to identify some of the key developments in schooling and discuss some of the dominant historical interpretations. The purpose of this paper, then, is to provide an overview of the history of publicly funded education at the elementary and secondary school levels in Ontario from about 1840 to 1990 and to highlight some of the central debates about the purposes and content of schooling that have marked the history of education in the province. A brief paper cannot, of course, do justice to 150 years of schooling in a large province with a diverse population. At best, it can only provide the shortest of introductions to a rich and complex set of experiences and raise questions about a system which has dominated the lives of many young people and their families since the mid-nineteenth century.

One thing is certain. People living in the geographic area now called Ontario have always engaged in and valued education. It is through education, broadly defined, that young people learn about the world into which they are born - its values and mores, its social categories such as race, gender and class, its expectations and demands. Educative processes provide the young with the knowledge they need to survive in and contribute to their society. In this context, it is important to remember that for the better part of time, young people were educated by their parents, relatives, elders, employers and other community members through a variety of informal and formal methods. Children would, and still do, learn by observation and imitation, through storytelling, apprenticeship, oral instruction and participation in the work, play, ceremonial and spiritual activities of their societies. In addition, by the early part of the nineteenth-century, large numbers of young people from middle class families attended private, voluntary schools, some of which were aided by government grants and all of which were supported by student fees (Gidney and Millar, 1985). Despite the fact that schooling and education are almost synonymous these days, it is important to remember that formal, compulsory, age-graded, universal, state-regulated, publicly funded schooling is only one form of education and a relatively recent one at that.

Ontario's school system as we know it was really shaped by a series of school acts passed during the 1840s. However, in 1797 the provincial government had set aside large tracts of Crown lands for the future support of education and legislation in 1807 and 1816 introduced local boards of school trustees, established the notion of state control over who could teach and provided for a rudimentary system of administration which included provincial involvement (Houston and Prentice, 1988). With the Common School Act of 1841, the task of providing a uniform school system for the United Province of Canada began in earnest. This Act introduced compulsory taxes on property as a means to fund elementary schools and doubled the size of government grants in aid of schools. It almost immediately became apparent that there were a number of flaws in the 1841 Act and significant changes were introduced with the Common School Act of 1843. The 1843 Act set the stage for an effective, centralized administration of schools in Ontario and placed some limits on the powers of local authorities. Local school trustees could only use textbooks, make rules and hire teachers approved by local superintendents. As Gidney and Lawr (1978) put it, "with the Act of 1843, the process of subordinating locally elected officers to appointed administrative functionaries had begun" (p.170). Through the Common School Acts of 1846 and 1850, drafted by Egerton Ryerson who became chief superintendent at the beginning of this period, the hold of the central authority was strengthened through the addition of powers "to make regulations concerning the organization, government and discipline of common schools", the classification of teachers and schools, and the textbooks to be used" (Gidney and Lawr, 1978, p. 172). While local superintendents continued to be appointed locally, they were now required to follow the chief superintendent's instructions. With the passage of the School Act of 1871, the provision of free common schools by every municipality was made mandatory. The 1871 Act also introduced compulsory attendance for all Ontario children between the ages of seven and twelve who were now required to go to a school for at least four months of every year. Certainly, these Acts, along with others, made provision for the basic or elementary education of children and established the legislative framework for a school system which, in important respects, survives to this day. Shortly after Confederation, then, the Ontario school system was firmly established as one where the province exercised centralized administrative control but exercised that power in a delicate tension with local authorities. A cadre of school inspectors were responsible for ensuring that provincial regulations and directives were observed but as Curtis (1992) points out, the inspectors also provided a necessary link between local agencies and provincial authorities. He goes on to argue that

Educational inspectors, typically respectable, Anglo-Saxon men of property, were strategically placed to effect changes in structures and practices of governance. They were placed to promote and, at times, to enforce their cultural conceptions, their moral standards, their sense of justice, and their aesthetic sense as models for the rest of society. Tendencies towards educational standardization embodied their standards. (Curtis, 1992, p. 7)

In other words, local inspectors implemented the essence of the Common School Act of 1846 - standardization of curriculum content, of textbooks and of teachers - all hallmarks of the Ontario school system by the end of the nineteenth-century.

Furthermore, by the 1880s "virtually all of the characteristic features of the modern secondary school had been put in place" (Gidney and Millar, 1990, p. 7). These features included co-educational instruction and a curriculum consisting of a core of subjects plus the availability of some options. Latin and Greek were no longer considered the essential subjects and had been replaced by an emphasis on English studies and the acceptance of "modern" subjects such as the natural sciences. A system of provincial examinations was in place and, although the "payment by results" method of allocating legislative grants introduced in 1875 was abandoned by 1882, the ethos of cramming and drilling for examinations and "the type of learning it encouraged was still apparent in the schools almost 100 years later" (Wilson, 1970, p. 226).



In summarizing the state of schooling by the late nineteenth-century, Gidney and Millar (1990) conclude,

The vertical integration of the education system was now complete and its tripartite divisions clearly delineated, with the secondary and post-secondary sectors extending upwards from the elementary schools. At each boundary line, co-ordinated curricula and examinations ensured a smooth transition from one stage to the next, and at the same time rationed the available school places accordingly [*sic*] to quasi-meritocratic criteria. (p. 313)

Between 1851 and 1881, the rate of enrolment in the common schools increased by 229% and in the grammar schools by 397%. Of the total population of 712,093 young people aged 5 to 15, 489,404 were in school in 1881 for at least part of the year (Gidney and Millar, 1990, p. 325). Average daily attendance in 1880 was 45.5%, a figure which slowly climbed over the years (Statistics Canada, 1978, p. 32). In 1891, *An Act Respecting Truancy and Compulsory School Attendance* was passed. Children aged eight to fourteen were required to attend school and penalties could be imposed on parents or guardians if children were truant (Brehaut, 1984). By 1900 average daily attendance stood at 55.9% and by 1920 at 70.7%. After 1930, attendance fluctuated slightly but always remained in a range from 87.9% to 95.5% (Statistics Canada, 1978, p. 32). At the same time, it must be remembered that well into the twentieth-century, large areas of the province were not well-served by schools and often children and young people in isolated and rural areas received only the most basic of schooling. In addition, children with special learning needs often did not have those needs met by the regular school system.

In 1919, Ontario passed the Adolescent School Attendance Act which made attendance compulsory until the age of sixteen. This was at least partly a reflection of an already occurring phenomenon - increasing numbers of teen-agers were staying on in school for longer and longer periods. Stamp (1982) notes that while the population of Ontario increased by 17% in the 1920s, enrolment in secondary schools quadrupled. Immediately following World War II, 37% of young people between the ages of 15 and 19 were in schools, and this figure climbed to 41% in 1950-51 and 51% in 1955-56 (Fleming, 1972). However, as late as 1955-56, only 30% of young people aged 18 had graduated from secondary school although this graduation rate increased to 52% by 1965-66, to 61% by 1975-76 and in 1990-91 stood at 75% (Ontario Ministry of Education and Training, 1993, p. 13).

Throughout the twentieth-century, the school system grew and developed but in its basic shape and content remained true to its nineteenth-century roots. As Curtis (1988) observes, “[t]he accomplishments of the Ryersonian educational administration were and continue to be trumpeted by later generations from the work of George Ross in the 1890s to that of educational planners in the 1980s” (p. 380). Of course, some modifications and reforms were instituted from time to time in response to changing clienteles and social conditions, most notably in terms of school programs and in extra-curricula activities. After 1950, as the impact of the baby boom and a sizeable post-war immigration was felt, both the elementary and secondary school system expanded rapidly to accommodate growing numbers of children and young people. During the 1950s and 1960s, the one-room schools disappeared and much larger physical plants took their place. Secondary schools, in particular, expanded in size and many came to include huge vocational wings, the development of which was encouraged by federal government incentives in the area of technical education. At the same time as the school system was expanding, as huge numbers of teachers were being hired and new schools were being built, increased centralization occurred in the province. Although the provincial government had made attempts during the 1920s and 1930s to abandon the local governance structure of school sections in favour of larger administrative units (townships), and had achieved some success, the really significant reorganization occurred in the late 1960s when counties were named as the most satisfactory school board unit (Fleming, 1972). As a result of consolidation, the number of school boards in Ontario declined from 3,676 in 1960 to 200 by 1974 (Allison and Gidney, 1994).

If the late 1950s and the 1960s were a period of rapid expansion and optimism, the 1970s and 1980s became a time of retrenchment and pessimism. After 1970 elementary enrolments began to decline and after 1977, the number of secondary school students declined. The fall-off in enrolments, about 250,000 between 1970 and 1985, meant that first classrooms and then schools fell nearly empty and this, in turn, caused attrition in the teaching force. Managing declining enrolments was made more difficult because Ontario, like much of the western world, was experiencing financial hardships including periods of high inflation and high energy costs, high levels of unemployment and other difficulties associated with global economic restructuring. The fiscal resources available for education were strained as the provincial government exercised tighter control over the financing of education and a heavier burden fell on local boards.

During the 1960s and early 1970s, the provincial government had increasingly encouraged the decentralization of curriculum planning and implementation and had effectively divested itself of responsibility for evaluating learning through provincial examinations. Local school boards had been allowed considerable latitude in the development of curriculum at all levels and were expected to assess educational attainment in their own ways. By 1976, however, this trend was reversed as the province once again asserted control over school programs and became more prescriptive in orientation. In that year, the Minister of Education, Thomas Wells, declared

[w]e are now convinced that, in our enthusiasm for curriculum flexibility, we may have gone too far in decentralizing the responsibility for the preparation of courses of study at the elementary and secondary levels. In championing the concept of local autonomy in curriculum development, I believe that we have relinquished to too great a degree the element of central direction and central expectations and standards of student achievement. (Quoted in Wilson, 1977, p. 31)

Finding the balance between central control and local autonomy has, since the 1840s, been the subject of much struggle and debate. In general, it can safely be argued that central control has been more dominant than local autonomy for, in important sense, local autonomy exists only at the behest of the central authority. As the comments of Wells illustrate, the provincial government can decide to divest itself of control over, for example, curriculum but can then just as readily reclaim control. In the context of current discussions about parent councils, it is important to note, too, that many of the earliest struggles around local control over schooling focused on parental rights to hire and fire their children's teachers and to intercede when teachers used corporal punishment, especially excessively violent punishment, to maintain discipline in the classrooms and school yards. Curtis (1988) argues that much of the purpose of the increasingly intense administrative nature of the school system was directed towards weakening direct community regulation of the schools and hence direct parental involvement was actively discouraged. It was only in the twentieth-century that the administrative relations within the school system resulted in the creation of what the centralized system saw as "good" parents - that is, parents willing to support the authority of the school, ignore the complaints of students and beat at home the student beaten at school. Once there was a critical mass of these "good" parents, argues Curtis (1988), Home and School Associations were formed in order to involve parents in their children's schools. In other words, once parents had been reshaped into willing political subjects who would support rather than challenge teachers acting as agents of the state, parents could be (re)involved in the education of their own children.

Cameron (1972) also makes some interesting observations about provincial and local control and argues that what appears to be decentralization and hence a growth in local control can, in effect, be just the opposite. In an analysis of what looked like decentralization in the 1960s, Cameron (1972) suggests

[t]he effective subordination of school boards occurred, ironically, at the same time as they assumed greater political responsibilities



and fiscal resources than had ever been the case since the provincial government began concerning itself with public education early in the 19th century. The Department of Education relinquished the control of the operation of the schools it had previously exercised through the cadre of inspectors, while school boards gained jurisdiction over the supervision of their own schools and governing responsibility for large territorial units, giving them extensive potential resources.

The explanation of this apparent paradox would appear to lie in two factors. On the one hand, in giving up its concern with the minutiae of school-board operations, the Department of Education assumed a much greater competence to over-see - and therefore control - the broad directions of school-board organization and policy. For example, the imposition of controls on school-board capital spending was made possible by the development within the department of expertise in the areas of school-building research, design, and financing. Such expertise was the direct consequence of the shift to research and service as the primary role of the department, as opposed to direct regulation and control.

On the other hand, the increased resources and responsibilities of school boards were bought at the price of a severance of the identification of those boards with small, self-contained communities. ... the community orientation of small school boards lay at the heart of the *quasi*-subordinate status of such boards. Removal of the basis of community support through consolidation of school districts also removed the barrier to the assertion of greater provincial control. In short, a much more competent and sophisticated provincial government faced a group of school boards with impressive resources and responsibilities but without the political base to resist provincial direction and control. (p. 287)

While the basic administrative structures of schooling in Ontario were established before the end of the nineteenth-century, the system responded during the twentieth-century in significant ways to a growing list of educational demands. Stamp (1982) claims that for the one hundred year period beginning in 1876, key accomplishments of the system include

vertical extension of public education downwards to what had once been considered the pre-school years of early childhood, and upwards to the tertiary level of post-secondary education; lateral or horizontal extension through diversified program offerings to an almost infinite variety of special learners; and geographic extension to the most remote areas of the province, so that the rural-urban discrepancies of 1876 were close to being eliminated. (p. 250)

Yet, as Stamp also observes, many educational concerns and problems have persisted over time, as well. Indeed, though the birth, growth and development of schools in Ontario is often presented as a matter of general agreement and consensus, the truth is that schooling was and is marked by a considerable degree of disagreement and conflict. Disputes over the education of girls (Gidney and Millar, 1990) and over teachers' rights to punish students (Curtis, 1988) are but two examples. It is generally agreed, however, that the two most conflictual domains have been religion and language.

When the school system was being established in the nineteenth-century, there was never any doubt that religion and schooling belonged together. The question, rather, was how they would be brought together. In Upper Canada, the Anglicans under the leadership of John Strachan, argued for a denominational system but this was rejected in favour of a school system based on a common Christianity, the option favoured by Ryerson, a Methodist minister. The 1841 School Act contained

a clause which made provision for religious minority rights and a later revision made it clear that only religious schools based on the Protestant and Roman Catholic divide would be allowed. That is, separate school rights were allowed to Roman Catholics, although it should be noted that at the time of Confederation provision was also made for separate schools for racial minorities and for some linguistic minorities (Wilson, 1970, pp. 231-232). After years of wrangling over issues related to the control and funding of Roman Catholic separate schooling, the Scott Act of 1863 was passed to legislate a compromise. Roman Catholics achieved the right to establish their own schools throughout the province and to receive a share of property taxes and provincial school grants. However, the separate schools remained part of the over-all school system in Ontario, agreeing to use the same program of studies and textbooks, hire only properly qualified teachers and subject themselves to inspection by provincial officials. Under the terms of union in 1867, the provisions made for Roman Catholic separate schools were protected in section 93 of the British North America Act. Significantly, these conditions applied only to elementary school education and thus the stage was set for the next round of controversy, the funding of secondary education in the Roman Catholic separate school system.

This debate became particularly intense during the 1960s when the effects of the baby boom and increased immigration from the solidly Catholic nations of southern Europe caused an overflow of students in the separate school system. This increased enrolment occurred at the same time as there was a decrease in the number of teaching nuns and brothers and hence the Roman Catholic system was also faced with the expensive need to hire more lay teachers. The solution to the plight of the Catholic schools was found by including them in the new equalization grant formula. According to Purdy (1991), this approach allowed the government to support the separate school boards but defused opposition because it did not take money away from other boards and did not make any fundamental changes since funding continued, as it had before, only to the end of grade ten. Despite spirited campaigns and the invoking of the government's own equal opportunity rhetoric, separate schools were not able to move beyond the *status quo* until 1984 when Premier William Davis unexpectedly announced that beginning in 1985, funding for separate schools would be extended until the end of high school.

The decision of the Conservative government, implemented by the succeeding Liberal government, was challenged in the courts by a number of public school boards and the Ontario Secondary School Teachers' Federation but a unanimous decision of the Canadian Supreme Court upheld the government's policy of extended funding. The decision to extend funding resulted in a series of other difficulties. Disputes arose over the transfer of students and facilities from public to separate boards as well as over the redundancy of teachers in the public system. Many of these disputes resulted in "unfortunate episodes where old religious animosities resurfaced" (Purdy, 1991, p. 99).

The extension of funding to the Roman Catholic schools also set off a debate about whether public funding should be made available to religious private schools. Arguments were made against the "special" status accorded to Roman Catholics and complaints about "double taxation" were aired by parents sending their children to private schools. In 1984, the government appointed Bernard J. Shapiro to investigate and make recommendations about independent or private schools in the province, particularly with respect to funding and governance. In 1985, Shapiro completed *The Report of The Commission on Private Schools in Ontario*. He made several recommendations and developed the idea of an associated independent school (Shapiro, 1985, pp. 53-57). Little action has been taken on the recommendations and the recent Adler decision suggests it is unlikely that independent schools will receive public funding in the near future.

Nonetheless, discussions about extended funding for Roman Catholic schools and about private religious schools renewed debate about the link between religion and schooling. On the one hand, accusations about the secular humanism of the public schools and criticisms about values clarification in the curriculum and the teaching of moral relativity were heard. At the same time,



the common Christianity approach was challenged as inappropriate for the new multi-cultural, multi-faith Ontario. Recent court decisions related to the Lord's Prayer and provisions in the Education Act that dealt with religious instruction forced the government to make changes. In 1990 a new policy was announced by the Education Minister Marion Boyd permitting public school boards to offer programs of education about religion as long as they reflected the multi-faith nature of the province and were not doctrinal in nature.

Disputes about French-language instruction in Ontario raged during the latter decades of the nineteenth-century and into the twentieth-century. Unfortunately, as Gaffield (1987) points out, "social historians have given the history of non-English-language schooling very little attention" (p. 5). It is generally acknowledged, however, that Ryerson and his colleagues accepted a language diversity in the province both with respect to teachers and to textbooks. This was the situation not only for French but for German as a language of instruction in areas around Waterloo. Gaffield (1987) argues that this tolerant approach was adopted because Ryerson believed that francophones "would soon voluntarily surrender their own distinctiveness and accept instruction in the dominant school mode" (p. 15). By the 1880s, however, it became apparent that this would not be the case and the press and several Conservative politicians began a campaign against French language instruction in the schools. In 1885, George Ross, the Minister of Education, introduced a new regulation requiring two hours of English instruction in the lower grades and four hours in the upper grades each day in all Ontario schools but this regulation as well as another dealing with language provisions for teacher certification proved unenforceable.

In 1910, the Education Congress of French Canadians of Ontario met in Ottawa and passed a series of resolutions demanding increased educational rights. The new militancy of Franco-Ontarians "chilled the blood of many leaders of the province's Anglo-Saxon mainstream" (Stamp, 1982, p. 85). Charges of inefficiencies and low standards of education in French-language schools and of high drop-out rates at an early age led to the appointment in 1910 of F.W. Merchant as a commissioner charged with evaluating the French-language schools. While Merchant's report, tabled in 1912, identified weaknesses in the francophone schools, he recommended specific measures for improvement rather than the elimination or restriction of such schools. Contrary to Merchant's recommendations, Premier Whitney, in 1912, introduced Regulation 17. This regulation restricted the use of French as a language of instruction to no more than the first two years of schooling and made English instruction compulsory from the moment a child entered school. Government funding was tied to the employment of teachers able to offer instruction in English and only authorized textbooks could be used in the schools. Franco-Ontarians mounted a strong resistance to Regulation 17 and as early as 1913 modifications to the regulation were introduced. By the end of World War I, the province had adopted a more moderate policy towards French-language instruction and in 1927 the province returned to a policy of accommodation. A special committee of the Department of Education was established to study all requests for French-language instruction. This committee would then make recommendations to the Minister of Education who would act on the committee's advice. It remained until 1968 for Ontario to fully authorize French as a language of instruction in public schools (Majhanovich and Ray, 1991).

The development of heritage language programs also have resulted in considerable controversy. In response to the federal multicultural policies of the early 1970s, the provincial government in Ontario as well as some larger urban boards began to examine their policies and programs with respect to cultural diversity. Early efforts aimed at heritage language programming met with considerable resistance from supporters of an English only or, at best, an English-French bilingual program (Cummins and Danesi, 1990). In 1977 the Ministry of Education announced its intention to establish a Heritage Languages Program. Each heritage language course was funded under the Continuing Education Program and was to be offered on weekends or after the regular school day or integrated into a school day extended by half an hour. Instructors hired under the program did not require an Ontario Teaching Certificate and thus could be paid at a much lower rate than regular classroom teachers. Despite the rather limited nature of this program, considerable

hostility was evinced from those opposed to it (Cummins and Danesi, 1990). Demand for heritage language instruction, however, was enormous and the program grew rapidly. As the ethnic communities in centres such as Toronto proposed increases in the use of heritage languages in selected schools, opposition from some elements of the Anglo-Canadian community built. Amidst claims that heritage language programs would lead to Balkanization and fragmentation, in 1988, the provincial government introduced legislation to make it compulsory for boards to offer heritage language instruction if 25 or more parents with children in the board requested it.

Obviously, contemporary debates about the purposes of schooling, about accountability, excellence and equity and about what knowledge is of most worth are not new. Historians are not in complete agreement about the purposes the founders had in mind when they shaped Ontario's school system. For many historians, the motivating factor behind the development of the school system was the reformers' concern for "degenerate" families and idle youth who clogged the streets of urban centres, especially Toronto, and often turned to lives of petty crime and violence. Certainly, the flowing rhetoric of Ryerson and other school reformers, if taken at face value, supports the notion that schools were established to take care of a range of social problems created by loutish lads lounging on street corners and without gainful employment. As Ryerson said, to neglect the education of children was "to train up thieves and incendiaries and murderers" (quoted in Houston and Prentice, 1988, p. 99). In addition, a growing concern about poverty in Upper Canada led to the linking of higher levels of education with economic growth and prosperity. Within this analytical framework, then, the purpose of schooling was to educate the young to enable them to avoid lives of criminal activity and profligacy and to lead lives of refinement and prosperity (Wilson, 1970). A moral society and a thriving economy were both linked to education for the masses. Houston and Prentice (1988) believe that School reformers self-consciously proclaimed a new vision of society. The world they put forward was one that was increasingly divided into two classes: those who were educated and those who were not. The essence of their message was that the unschooled were destined to be the menials of the world, the hewers of wood and the drawers of water to their better-educated neighbours, whether one was talking of individuals, communities, or nations. To seek education, therefore, was to seek social advancement; to neglect it was to court, however inadvertently, social and economic disaster. (p. 103)

In a somewhat related analysis, Curtis (1988) suggests that the real purpose of schooling was the creation of a population in Upper Canada that was capable of being governed. That is, schools were to play a key role in state formation by creating subjects who were disciplined, self-regulated and "reasonable." It is probably no accident that the school acts of the 1840s followed hard on the heels of the rebellions of 1837-1838. The safety of property and the promotion of a climate of peace, order and good government conducive to foreign (i.e., British) investment were tied to the need for an educated populace. There is no doubt, too, that the governing elite were concerned to use the schools to create loyal British subjects. The desire to establish central control over textbooks, especially readers, and to ensure that all teachers were British subjects is a reflection of initiatives to keep Upper Canada British. More importantly, Curtis (1988) argues, schooling was used "by respectable classes to solidify their rule, to mediate class conflict and to colonize civil society" (p. 370). In terms of curriculum content, "Official knowledge presented the patriarchal, linguistic, ethnic, political [,] economic and religious interests of the ruling class as the general interest of society" (p. 371). Furthermore, the specific forms of educational practice

mediated class relations both by substituting abstract authority figures for particular priests and proprietors, and by inflecting authority relations, in such a way that they became personal and psychological relations. Educational practice contributed to the construction of bourgeois hegemony by normalizing particular forms of character and comportment. (pp. 370-371)



Curtis argues, that is, that the real purpose of schooling was (and is) “to transform certain principles of social existence into dimensions of individual psychology” (p. 378), to shape the character structure of individuals through the inculcation in students of particular kinds of attitudes towards themselves and others that were in keeping with the bourgeois hegemony.

A somewhat different analysis of the development of education is proposed by Gidney and Millar (1985 and 1990). With gentle irony, they suggest that in the 1840s, “[f]aced with the inadequacies of familiar and traditional means of educational provision, Upper Canada’s middle class adopted a simple but innovative solution: they put their children on the rates” (Gidney and Millar, 1985, p. 457). While the middle classes may have talked about noble goals such as saving poor children from lives of destitution, Gidney and Millar (1985 and 1990) argue that public investment in education flowed mainly and directly to the middle classes who used the new tax-funded school system for their own interests. In particular, the high school was used as “the vocational and pre-vocational school of the middle classes” (Gidney and Millar, 1990, p. 318) for parents wanting their children to enter the professions or other white collar occupations. While public institutions were formally open to all, Gidney and Millar (1985) point out that socio-economic realities of working class families ensured that children from those families attended school for shorter periods of time, leaving the senior grades almost solely the domain of young people from wealthier homes.

Before mid-century, class differences had led to attendance at different schools. Increasingly, in the decades after mid-century, these differences resulted in differing attendance patterns within the same school - two classes, so to speak, learning in the bosom of a single state system. (Gidney and Millar, 1985, p. 468)

In other words, Gidney and Millar believe that a primary purpose of public schooling, even in the nineteenth-century, was vocational preparation and that schools, however inadvertently, replicated the class system.

The arguments about the purposes of schooling - for character formation, for social reform, for patriotism/nationalism and democratic citizenship, for economic prosperity, for vocational preparation or job training - persist in rather similar forms across the nineteenth and twentieth-centuries as do the related critiques of those purposes. It is beyond the scope of this paper to detail all of the ways in which these arguments about purpose have taken form but some specific examples will serve to illustrate the continuity of the debates. It should be remembered, as well, that the boundaries between the various purposes posited for education are blurred and, of the purposes discussed, none exist in isolation from the others.

Ryerson and others held that the primary purpose of schooling was the development of individual character. By this they meant that schools should “produce citizens who would be first of all Christian and, moreover, useful members of society” (Jain, 1977, p. 40). One hundred years later, in 1951, the Chief Director of Education for the Province of Ontario, J.G. Althouse, reiterated the view that turning out the right kind of person was still a key objective in schooling. There is, of course, some disagreement about what the right kind of person might be. The Ontario Education Act still requires teachers by “precept and example” to instruct students in frugality, sobriety, purity, temperance and “all other virtues.” Business organizations call for loyalty to the employer, punctuality, neatness, self-discipline and hard work as the character traits they wish to see inculcated in the young. The Hall-Dennis Report of 1968 took up a somewhat different approach to the development of character which reflected the more traditional liberal arts view with roots in ancient Greece. The report’s opening paragraph, including its lack of inclusive language, read:

The underlying aim of education is to further man’s unending search for truth. Once he possesses the means to truth, all else is within his grasp. Wisdom and understanding, sensitivity, compassion, and responsibility, as well as intellectual honesty and personal integrity, will be his guides in adolescence and his companions

in maturity. (Provincial Committee on Aims and Objectives of Education in the Schools of Ontario, 1968, p. 9)

This report went on to connect the development of individual character with the purposes of social reform and liberal democratic citizenship.

Ryerson and his colleagues also promoted the ideology that more schooling would combat drunkenness, vulgarity, idleness, delinquency, promiscuity and a range of other social sins. In doing so, they were not alone either then or now. The idea that schools could be an essential agent for improving social life has been around for several centuries and formed part of the reasoning behind such endeavours as Sunday schools and other philanthropic ventures in Great Britain and elsewhere. Industrial schools for delinquent and neglected children as well as for aboriginal children were developed in Ontario in the nineteenth-century ostensibly on the basis of teaching work skills to “disadvantaged” young people. From 1880 until well into the 1920s, Canadian child savers saw schooling as a key tool in the fight against poverty and unemployment among the working class (Sutherland, 1976) and social service workers and public health nurses to this day work with schools to influence and control children and their families. Similarly, many community groups have turned to the schools and used educational programs aimed at children to shape both their behaviour and the behaviour of their families. A prime example of this occurred from the 1880s to the 1920s in the work of the Ontario Woman’s Christian Temperance Union which, as one of many strategies, sought to combat the evils of alcohol through instruction in public school classrooms (Cook, 1993). Other, more contemporary, examples include anti-smoking, safe sex and anti-violence programs in the schools. Consistent in the analysis of all the social reformers was the feeling that children were the hope of the future, that children were the citizens of tomorrow. Consequently, if children could be influenced and educated, if their attitudes could be re-shaped and revised, social improvement would necessarily follow.

Of course, as many historians have pointed out, one of the difficulties with all this is that social reformers in the past often tended to be paternalistic, with their real concern being the moral regulation or control of the working class or of specific ethnic communities. Their goal was an homogenized community, rather than a pluralistic one. For example, Dehli (1990), in her study of public health nurses in the 1920s, argues that public health interventions through children “became one of the strategies whereby sexual, familial, and intergenerational relations within the working classes were to be made more regular and dependable” (p. 249). In other words, when the purpose of education is the moral uplift of others seen as less fortunate than one’s self, the end result, whether intended or not, is often little more than the crass imposition of dominant cultural forms and practices on people seen as “the other,” as different. The sorry results of schooling arrangements for First Nations’ children is a good example of this. Removing aboriginal children from their families and communities, often forcefully, and sending them to boarding schools where their language and culture was systematically denied them, was the preferred educational option for a good part of the twentieth-century. The purpose of this education clearly was “to assimilate Aboriginal children to European customs and values” (Bouvier, 1991, p. 294) for their own good. Similarly, the assimilationist model of schooling which imposed Anglo-conformity on successive waves of immigrants to Canada reflects the worst of the social reform impulse in schooling.

However, as many historians point out, seeing the work of social reformers as merely social control does not do justice to the agency of those who are being “reformed.” That is, poor people, immigrants, aboriginal people, women and visible minorities can seize, use and re-work knowledge and skills in their own interests. A specific example of this can be seen as previously silenced groups demand that schools serve the purpose of social justice rather than a top-down, imposed and narrow understanding of social reform. Demands for gender equity and anti-racist, multicultural education can be seen in this context as can demands for native control of native education. The revision of curriculum to make it more inclusive, the official sanctioning of heritage language programs and the attention slowly being given to understanding and changing discriminatory



classroom practices reflect a broader social justice purpose for education. While the social reform purpose emphasizes changing the individuals at whom schooling is directed, the social justice perspective seeks to provide knowledge and understanding to disempowered or excluded groups in order that they might work for social change.

Another common purpose for schooling has been the preparation of good citizens. Again, there has been disagreement as to the meaning of citizenship. For many early educators, citizenship has meant patriotism and patriotism meant “strengthening the imperial sentiment” (Stamp, 1970, p. 306). After the American Revolution, the concern was for providing a British education offered by teachers who were British subjects using textbooks that reflected a pro-English perspective. From about 1890 up to and during World War I, the schools were used to stir up a pro-British jingoism. School readers utilized selections of prose and poetry designed to promote loyalty to the British Empire. Ontario introduced the idea of and successfully implemented “Empire Day,” a day for all school children to celebrate the imperial connection. For George Ross, the Ontario Minister of Education so instrumental in the birth of Empire Day in 1899, the love of Canada and loyalty to the Empire were compatible emotions and part of teaching the “highest type of citizenship” to Ontario students (Stamp, 1977, p. 103). During World War II, the schools were once again used to promote patriotism but by the 1940s the focus was primarily on Canadianism rather than on the British connection. And then, of course, in the late 1960s and 1970s, the schools experienced the birth and growth of Canadian Studies, a more subtle approach to encouraging Canadian nationalism and a particular form of proud citizenship. The Hall-Dennis Report called for “a fresh approach” to the issue of Canadian identity that would “develop a national spirit that transcends the bounds of narrow nationalism” (Committee on Aims and Objectives, 1968, p. 93).

Historically, then, citizenship education has been seen as preparing loyal and conforming subjects, first of the British Empire and then of the Canadian nation. Osborne (1991) notes further that citizenship education has assumed a conservative aura about it.

Most often, in the school context, responsible citizens are those who do their homework, obey their teachers, run for student council, help maintain school spirit and pick up an award or two. Above all, they do not rock the boat. The same is generally true in the world outside the school, where responsible citizens are those who do what they are told and do not ask too many awkward questions. (p. 3)

He argues, however, that using schools for the purpose of creating citizens should not be abandoned. Rather the radical potential of citizenship as understood during the French and American Revolutions should be reclaimed. He argues that schools should teach citizenship but not “a restricted, *status quo* version.” Instead schools should teach “the kind of citizenship that stresses the importance of active, critical participation directed towards the enhancement of democratic values” (Osborne, 1991, p. 6). In this, Osborne is a successor of the radical, progressive educators of the 1930s as well as a number of trade unionists of that and succeeding generations. In 1989, for example, the Ontario Federation of Labour argued that the purpose of the education system was “to equip everybody with the ability to learn how to learn, to think critically and to be able to act on their views” (p. 131).

Gidney and Millar (1990) make the point that a central purpose of education in Ontario has always been vocational. They demonstrate that the middle classes used schooling throughout the nineteenth-century as a means to ensure that their sons were able to enter the professions and other forms of white collar work. Ryerson wanted education that was “practical” and useful and argued that a well-schooled work force would contribute to economic prosperity. This theme recurs in educational debates to this very day (Coulter, 1991). Economic prosperity and what we now call global competitiveness were seen to be dependent on an educated work force. Calls for enhanced technical education occurred in the 1880s and continued through the 1913 Report of the Royal Commission on Industrial Training and Technical Education. When rural education was identified

as a problem prior to World War I because provisions for farm children were seen to be inferior to what was offered in urban centres and young people began to leave the land, efforts at correction were made through practical and applied agricultural education, manual training and household science funded by the Macdonald Education Movement, this tobacco company being an early example of corporate sponsorship in the schools. Federal legislation in 1919 provided funding to the provinces to establish technical education classes in their schools. Commercial (business) education grew during the 1920s as the clerical and office work sector expanded and more jobs became available, especially for young women.

During the depression years, high levels of youth unemployment were attributed to a lack of training and the federal and provincial governments established the first of many joint youth training initiatives geared directly towards the world of paid employment (Coulter, 1993). During the period after the war, Canada experienced a shortage of skilled labour which it solved through immigration. Finally, in 1960 the federal government passed the Canada Technical and Vocational Training Assistance Act which provided funding to the provinces for a massive build-up of vocational and technical training wings as part of secondary schools. While technical training was seen as necessary in its own right and there were genuine concerns about Canada's and Ontario's ability to compete in the market places of the world, just as there are today, the fact of the matter is that vocational education became part of the mechanism for sorting out or streaming students who were staying on in secondary school for increasingly longer periods of time.

In 1953, Althouse, Chief Director of Education for Ontario, discussed the dual tasks of the secondary schools. The first was the traditional one of preparing "young people of good brain-power and confirmed habits of industry" for university entry and the professions. The second, however, was the newer task of providing a terminal education "for those of just ordinary ability, or even of less than ordinary ability, for those of wavering determination and unaroused inclination" (Althouse, 1958, p. 237). In suggesting the two-tier system, which came to be connected with academic education for those considered bright and technical education for the others, Althouse was reiterating what The Royal Commission on Education in Ontario appointed in 1945 and known as the Hope Commission, had earlier promoted - ability grouping or streaming as we now call it.

When the federal government began to provide substantial financial support after 1960 for vocational education programs designed to prepare the young to enter directly into employment upon graduation, the stage was truly set for the reorganization of the traditional secondary school curriculum and organizational patterns within the high schools. The Robarts Plan, as the reorganization was soon called, established a series of new programs in 1962. The old General, Technical and Commercial programs were replaced by Arts and Sciences, Business and Commerce and Science, Technology and Trades. All three program areas had a five-year university preparatory stream as well as four-year and two-year streams (Fleming, 1972). In reality, only graduates from the Arts and Sciences program were university bound while

[t]he rest of the students were left in the lower-streamed commercial, technical and vocational programmes and their numbers soon burgeoned. In fact, the new curriculum doubled the percentage of those enrolled in the vocational programmes, at the expense of the academic programmes. The lower streams contained 46% of all high school students in 1967, as compared to 24% in 1960. (Curtis, Livingstone and Smaller, 1992, p. 47)

By the end of the 1960s, however, federal funds dried up and, in any event, the booming economy made direct training for employment seem less urgent. As a result of a new progressive impulse exemplified by the Hall-Dennis Report, Ontario introduced the credit system and an amazingly unstructured and flexible secondary school curriculum which maximized opportunities for student choice. Reaction against this approach was swift and sure and by the early 1980s the Ministry of Education had begun another review of secondary education and demanded a set number



of specific courses be completed for the high school diploma. The number of required courses slowly increased until it reached the presently specified core of 16 out of 30 credits. The new 1980s program of studies, *Ontario Schools: Intermediate - Senior*, established three streams - advanced, general and basic - which again served the purpose of sorting young people along the lines of socio-economic origins (Curtis, Livingstone and Smaller, 1992).

In 1987, the *Ontario Study of the Relevance of Education, and the Issue of Dropouts*, commonly known as the Radwanski Report, continued the line of argument that an important purpose of schooling was preparation for work. Radwanski (1987) claimed

[s]ince capital and technology can be deployed anywhere in the world, the key competitive variable is now the quality of the work force - that is, the level of knowledge, skills, adaptability, ingenuity and motivation possessed by the people in any given society. (p. 11)

In this expression, Radwanski became one of a growing body of commentators who have made schooling for work and global competitiveness the dominant discourse about the purposes of education. However, Radwanski (1987) recognized that the current system streamed young people largely on the basis of their class or race and argued that the goal of education should be to “provide everyone with a high quality general education” (p. 22) which he did not see solely in terms of economic concerns. There was little disagreement with this goal but there has been disagreement with just what constitutes a “high quality general education.” Radwanski’s prescription was essentially a list of traditional subjects and his brief descriptors of content revealed a remarkably Euro-centric outlook.

Over the course of the last 150 years, the schools have been used for several purposes. In important senses, almost all people agree that schools are suitable places to build character, to engage in initiatives to improve the world, to teach citizenship and to prepare the young for work and life. The disagreements have arisen in debates, however muted, about what kind of character, what kind of social reform/justice, what form of citizenship, and what kind of work education. In seeking to achieve one or more of these purposes, the question has been whether we want to create young people who will fit seamlessly into the existing society or whether we want graduates who will challenge their world and work for change.

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**Major Trends in Recent  
Educational-Policy-making in Canada:  
Refocusing and Renewing  
in Challenging Times**

**Jerry Paquette**

December 1993





**Paquette, Jerry.**

***Major Trends in Recent Educational-Policy-making in Canada: Refocusing and Renewing in Challenging Times, December 9, 1993.***

***(Grandes orientations en matière d'élaboration de politiques éducatives récentes au Canada: réorientation et renouvellement en des temps difficiles), 9 décembre 1993.***

This paper traces “the most important lines of the most pervasive issues and policy changes in recent Canadian educational policy-making” (p.1). The goals of the paper are: (a) to review critical issues that frame recent policy-making in Canadian education; (b) to summarize important convergences and divergences in general educational policy-making in the ten provinces and two territories; (c) to outline recent policy responses to the accountability challenge facing Canadian education; (d) to trace the main lines of recent governance reform in Canada; and (e) to assess the potential impact of such policies against a social, educational, work, and economic reality in revolution. Paquette’s review of policy and related documents has identified excellence and equity as the overarching issues, and these have been fuelled by the unquestioned need to become and remain competitive in a globalized information-age economy. He points out that education is a public investment, and that equity of benefit is as important as rigorous assessment of quality and efficiency. He also questions the current trends in education in the light of an increasingly technological age that will need fewer workers and will create two classes of citizens: those who are technologically able, and those who are not, and are, consequently largely unemployable. He believes that learning for its own sake will “re-emerge over the next decade from the shadow into which it has been cast by a faltering general human-capital theory during the first phases of the current great economic restructuring” (p.33).

\* \* \* \* \*

Ce document trace les «grandes lignes des questions et changements de politique les plus pénétrants en matière d'élaboration de politiques éducatives récentes au Canada» (p.1). Le document vise à: a) passer en revue les grands problèmes qui caractérisent l'élaboration de politiques récentes en matière d'éducation au Canada; b) résumer les points majeurs de convergence et de divergence en matière d'élaboration de politiques éducatives générales dans les dix provinces et deux territoires; c) exposer les politiques récentes qui ont été énoncées en réponse au défi que pose la question de la redevabilité du système d'éducation au Canada; d) tracer les grandes lignes de la réforme récente de la gestion scolaire au Canada; et e) évaluer l'impact éventuel de ces politiques compte tenu de la révolution qui caractérise actuellement le monde social, éducatif, professionnel et économique. L'étude des politiques et documents connexes entreprise par Monsieur Paquette lui a permis de déterminer que l'excellence et l'équité sont les questions cruciales. C'est le besoin de devenir et de rester concurrentiel au sein d'une économie mondiale d'information qui est à l'origine de ce phénomène. Il remarque que l'éducation publique est un investissement et que la question de l'équité des avantages est tout aussi importante que l'évaluation rigoureuse de la qualité et l'efficacité. Il remet aussi en question les tendances actuelles dans le domaine de l'éducation à la lumière d'un monde caractérisé par des changements technologiques constants qui entraîneront une diminution du nombre de travailleurs nécessaires et une division de la société en deux classes: ceux qui pourront s'adapter aux changements technologiques et ceux qui ne le pourront pas, devenant par la même, dans l'ensemble, inemployables. Il pense qu'apprendre pour le plaisir d'apprendre «sera un concept qui fera son apparition au cours de la prochaine décennie après avoir été éclipsé par une théorie défailante générale du capital humain au cours des premières phases de la grande restructuration économique actuelle» (p.33).



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The late eighties and early nineties have shown themselves heady and turbulent times, times that challenge fundamental assumptions underpinning educational policy and social purpose in Canada and elsewhere. At best, a paper of this length can only trace the most important lines of the most pervasive issues and policy changes<sup>1</sup> in recent Canadian educational policy-making. The necessarily modest goals of this report, therefore, are fivefold:

1. review critical issues that frame recent policy-making in Canadian education,
2. summarise important convergences and divergences in general educational policy-making in the ten provinces and two territories,
3. outline recent policy responses to the accountability challenge facing Canadian education,
4. trace the main lines of recent governance reform in Canada, and
5. assess the potential impact of such policies against a social, educational, work, and economic reality in revolution.

In this review and analysis of recent educational policy-making in Canada, I will 'focus mainly—but not exclusively—on elementary/secondary policy<sup>2</sup>. I will also, as space allows, sift, weigh, and compare the general purposes and specific rationales behind major recent policy reform efforts that are the subject of this report.

## **I Critical Issues of Educational and Social Purpose**

The overarching issues in recent educational policy-making and related consultation documents across Canada are the perennial ones of excellence and equity. A context of shrinking government resources and strong accountability demands has refocused educational policy on the importance and controversial nature of both quality and equality in education. The same context, more implicitly than explicitly however, has also forced increased attention to long-standing debate over the conflict and complementarity between these two central ideals of publicly-funded 'education'.<sup>3</sup>

More than any other contextual change, globalisation of an increasingly technology-driven world economy seems to have dominated recent educational policy-making and policy discourse in Canada. Becoming and remaining competitive in a globalised information-age economy is the rarely questioned nucleus of rationales for reforming Canadian education that are being offered to Canadian provinces by officially mandated consultative bodies—and being accepted by the provinces themselves. Echoing the belief of policy-makers and those with influence on educational policy across Canada in recent years, members of the recent New Brunswick Royal Commission on Education continued throughout its mandate to believe that "there is a strong link between education and economic and social development." Yet their confidence in the power of education as a general antidote to declining employment prospects dimmed considerably during the course of their mandate. In their final report on post-secondary education, they in fact warn of "a danger, especially in the present climate, of an indiscriminating pursuit of training" and called for " [S]erious evaluation of...programs, as well as of individuals...if we are not to waste valuable resources on activities which are not grounded in a realistic analysis of future employment opportunities" (The Commission on Excellence in Education,†1993). In its particularly desperate current economic context, the Newfoundland Ministry of Education went even further and, following Menzies' (1989) insightful and prophetic look at the meaning of the gathering "recession," wondered whether there really is a " productivity payoff" for a region like Newfoundland, and whether the more realistic outcome of massive deskilling, deindustrialization, and rapid decline in resource markets is not the creation of low skill, low paying jobs to replace higher skill and income jobs [JP]Page: 2 p. 44. (Minister of Education,1990).

In the end, however, these and other questionings of the reheated "information-age" version human-capital theory so prevalent in recent Canadian educational policy provide little more than a counterpoint to the prevailing human-capital education reform rationale in Canada—increased

economic productivity and competitiveness. Indisputably, the most pervasive rationale in recent official policy documents and consultative documents on education is the prosperity calculus of an updated human-capital faith crisply summarised by Radwanski (1986) in his influential report: "[E]ducation has long been recognised as an important contributor to economic growth, of course—but now it has become *the* paramount ingredient for competitive success in the world economy." That faith in the ongoing—indeed increasing—ability of higher *average* levels of educational attainment and achievement to deliver both personal and societal prosperity has been echoed in numerous commission, committee, and ministerial reports across Canada over the last five to seven years.<sup>4</sup> However doubtful this faith in the ongoing relevance of general human-capital theory to educational policy may be, it has, of late, become the cornerstone of educational reform in Canada. Recent restructuring of the Canadian labour market and a rapidly changing relationship between educational attainment and employment earnings, particularly for the young, suggest strongly, however, that this cornerstone is rapidly crumbling.<sup>5</sup> According to the 1990s version of this faith, to survive economically in the globalised economy Canadians must become more competitive and productive, and to become competitive in the high valued-added occupations of the information age, the dominant policy argument continues, Canadians—all Canadians—will require more and better education and training.

Not entirely overshadowed, of course, are the broader social-purpose rationales for education at the public expense. Moral and civic development, social responsibility and the will and ability to live in harmony with others and with the environment, the ability to participate knowledgeably in the democratic process are all goals being reaffirmed in various provinces (Sullivan Commission, 1988, Panel on Education Legislation Reform, 1993). Nor has that clarion-call of sixties progressivism in Canadian education, "individualisation" entirely disappeared from the educational policy landscape. Nonetheless, in general, recent educational policy discourse and documents in Canada have zeroed in on efficiency and accountability in promoting learning, skills, habits, and attitudes geared to economic productivity in a high-technology, "high value-added" workplace. Globalisation and its impact on the employment options (and lack thereof) of Canadians is cited as a primary impetus for educational reform in all provinces and territories and in many at both the elementary/secondary level and post-secondary levels.

The immediate corollary, however, to this renewed focus on educational excellence—and specifically on higher achievement in traditional core subjects such as math, languages, and the sciences—is lower revenues and sagging fiscal capacity. Increasingly educational reform in Canada is framed within rapidly declining fiscal capacity, a subject whose ominous details I have recently reviewed elsewhere (Paquette, In press a). Despite this worsening fiscal context, however, there is surprisingly little acknowledgement in educational policy and official consultative documents of the inevitable program and policy implications of this rapidly darkening fiscal picture.

Excellence-for-competitiveness has certainly not displaced equity as a central expressed concern in recent Canadian educational policy-making and consultation. Yet, and to a surprising extent given the strong economic, demographic, cultural, and linguistic challenges to educational equity in post-modern Canada, the excellence agenda has, of late, greatly eclipsed the equity agenda. Equity, in fact, whether it be resource equity, or equality of access, treatment, or results has become more the object of *symbolic* policy than of policy with any likelihood to change—or even to monitor in some credible way—the equity of publicly funded education in Ontario and several other provinces.

Buttressing this move away from policy aimed at equalising opportunities and results across social, ethno-cultural and geographical difference is the seductive myth and rhetoric of excellence-for-all (Alberta Education, 1991. "Excellence for all" becomes a particularly insidious policy oxymoron when cloaked in the functionalist jargon of ministries "assuring" equally excellent educational results. In the first instance, governments cannot "assure" equality, although they can promote it with well-targeted and feasible policies. Second, students are not equal, either in intellectual capacity or in the "cultural capital" (Bernstein, 1971) they bring to school, college, and



university. Moreover, "equal" (in the sense of "same") treatment is well known to further disadvantage those whose educational needs are greatest. Finally, the rhetoric of equalising opportunities within a context of a rapidly contracting resource reality, *especially where governments refuse to set clear program priorities and then rationalise to achieve them*, has a strong narcotic effect on initiatives to measure and report credibly the equality of educational provision and results across geographical space and social-reference groups. A "common curriculum," after all, can as easily ensure mediocrity and frustration for all as excellence for many. What is particularly ominous in the dramatically altered Ontario and Canadian demographic realities is a general reluctance to tabulate and report educational participation, attainment, and achievement data. Over the long term, *symbolic* policy-making is unlikely either to change the pattern of success and failure in Canadian schools—or to convince those whose personal life histories predispose them to educational failure that they are being treated equally and fairly by Canadian schools and institutions of higher learning. *Symbolic policy-making,<sup>6</sup> in the absence of ongoing monitoring of academic participation and success along demographic lines, will also fail to convince minority persons who make up a rapidly growing proportion of the Canadian and Ontario electorate that public education is an investment that benefits them as much as other Canadians.* Although currently relegated to the shadows of mainline Canadian educational policy-making, the equity agenda is likely to reassert itself with a vengeance to the degree that minorities, women, and others believe—in the absence of convincing evidence to the contrary—that public education serves best the educational, social, and economic "haves" in society.

## II Renewing the Mission of Publicly-Funded Education: Policies and Rationales

Tables I and III highlight significant recent policy thrusts of individual provinces in elementary/secondary education. Table IV does the same for the post-secondary level. The principal rationales invoked for strategic elementary and secondary policy reforms are shown in Table III; the main rationales being used for post-secondary policy reform are shown in Table V.

Careful review of recent provincial educational-policy reforms, and consultative documents implicated in that reform, leaves little doubt about the overall policy directions—or about assumptions underpinning them. Apart from a few rare exceptions, such a review also throws into stark relief widespread avoidance of the policy implications of the fiscal crisis confronting Canadian education. In general, educational policy in early post-modern Canada takes aim at the following goals:

1. increasing average levels of literacy and numeracy through higher participation rates and more rigorous and focused curricula
2. more rigorous and up-to-date programs in math, the sciences, and in the new technologies,
3. greater educational accountability, usually equated with more extensive use of standardised and criterion-referenced outcome measures,
4. greater efficiency understood mainly as lower unit costs for greater quality of educational services delivered to more students of all ages,
5. tighter integration and rationalisation of educational and training programs and institutions, and, especially removal of artificial (non-skill or non-knowledge-based) barriers to student mobility by general use of competency-based standards for assessing and recognising student learning and skills,
6. tighter integration of education and training at all levels with the world of work and with the private sector, and, although to a lesser extent,

7. increased equality of educational opportunity, and especially greater equality of access to post-secondary programs.

If a single policy goal has advanced to a position of primacy in educational policy making in Canada over the last decade, it is surely that of "competitiveness" in the new technologically-driven and globalised economy of the dawning post-modern information age. This emphasis on competitiveness in the "high-value-added" employment market of the information age leads directly to a pervasive policy dilemma that is further exacerbated by declining real-dollar resources available to support public-sector education. Reduced to its ultimate brutal simplicity, that dilemma is the degree to which policy backed by very scarce resources should favour on the one hand superb liberal and scientific-technical education for those viewed as most likely to contribute to Canadian competitiveness in the evolving techno-economy, and, on the other, higher levels of educational attainment and achievement among the general population. In brief, the dilemma that lurks behind the "excellence-for-all" smoke screen is one of hard choices that favour either excellence for the few or relatively high attainment levels for the many.

On this pivotal choice recent educational policy in Canada is largely silent. Yet, implicitly at least, a considerable change in emphasis and priority from equity to excellence has occurred over the last five to seven years. And, when one discounts rhetoric and symbolic policy and looks at concrete and implementable policy decisions, the "excellence" being pursued may well be more for the few than the many.

Evidence of a general shift toward increased rigour and depth in the curriculum is considerable and varied. Across a wide front, reinforcement of core curricula in traditional academic subjects has proceeded with some vigour, usually by the addition of course or total class-time requirements in language, mathematics, and the sciences. The secondary curriculum, in particular, has been sensibly extended in these and other "core subjects" in seven provinces and the Northwest Territories and such extension has been proposed by a Royal Commission in New Brunswick.<sup>8</sup> This tendency to clarify and concentrate the secondary curriculum has also been mirrored in similar efforts at the post-secondary level as well, although concern for institutional autonomy at that level has caused governments to proceed with considerable caution. One of the clearest reconcentrations of effort in the academic subject areas has been the recent reform of graduation requirements for Quebec's CÉGEPS.<sup>9</sup> Quebec has also recently announced substantial redefinition of its elementary and secondary program in the direction of greater emphasis on written language and traditional subject mastery.

Parallel to the issue of "core curriculum" is that of a "common curriculum." Although the terms are often used interchangeably, they are not the same thing. In Canada, at least, the notion of a "common curriculum" seems to hinge on the idea of a total learning experience that is similar, at least in its learning objectives, from one school and jurisdiction to another. Thus a "common curriculum" is difficult to imagine without a core curriculum embedded in it, but a core curriculum by no means ensures a common curriculum if much latitude is allowed in elective subjects and learning objectives. In British Columbia, this distinction has been made explicit with a common curriculum to grade 10 and a core thereafter. Ontario has also begun implementation of a still-under-development common curriculum to grade 9 and retains a required core beyond that grade.

At least two fundamental problems bedevil efforts to create and impose a common curriculum. One is that of balancing relative clarity about the learnings that *all* (read the vast majority of) students will achieve by any given point in their schooling with the need to accommodate learners of very different abilities who come to school with greatly varying cultural and linguistic capital. The other is closely related, balancing central control of what is taught with local and especially teacher initiative in defining how it is taught. Inevitably, the "how" affects the "what" and teachers who work within the highest tradition of teacher professionalism tailor curriculum content considerably in making it intelligible and relevant to their students. Hence the challenge—indeed,

# POSTMODERN

Table I(a): Announced Provincial Policy Priorities, Elementary and Secondary

PROVINCE/ TERRITORY	PROVINCIAL ACHIEVEMENT TESTS: ELEM.	PROVINCIAL ACHIEVEMENT TESTS: SEC.	SAIP PARTICIPANT	EXTENSION OF SECONDARY CORE CURRICULUM	"SECTORIAL" SCHOOLS <sup>1</sup>	"MAGNET" SCHOOLS <sup>1</sup>	DEMOGRAPHIC DATA ON PARTICIPATION/ACHIEVEMENT	DESTREAMING LOWER SECONDARY GRADES	SUBJECT INTEGRATION	MULTIPLE SUBJECTS TAUGHT BY SINGLE SECONDARY TEACHER	PARTNERSHIP WITH BUSINESS
Alberta	X	X	X	S	X	X	L1		P		X
British Columbia		X	X	C							
New Brunswick	P	P	X	P				P2			P
Newfoundland	P	P	X	X		P		2			P
Nova Scotia	X	X	X	X				SC	IK	GP	P
Manitoba		X	X	X				X	X	X	
Ontario	P	P	X			E	L2	PS		X	
PEI			X								
Quebec		X	X	X	X	EE	1	X			X
Saskatchewan	IND	XL	X	X							
NWT	A	X	X	XT			L3				
Yukon											

<sup>1</sup> 1989 Provincial exam results published by major maternal-language groups

A = occasional subject-specific "assessments."

C = "Common Curriculum" to Grade 10, integrated with "core curriculum" in Grades 11 and 12.

E = Exist in some boards.

EE = Exist in some boards, particularly in Montreal. Government has announced intention to promote "greater specialisation" up to and including sectorial schools.

(notes continued on following page)



- GP = general principal of "integration of knowledge across subject areas" endorsed (Manitoba Education and Training, 1992).
- IK = Endorsement of "integration of knowledge across subject areas" as pedagogical principle (Manitoba Education and Training, 1992).
- IND = Saskatchewan's "Directions" review committee recommends "development of a Saskatchewan Education Indicators Program...as soon as possible."
- X = Announced formally as government policy.
- XL = Saskatchewan has long required grade 12 subject exams as 50% of grades for students taking such courses from "non-accredited" teachers.
- XT = a very ambitious implementation plan has been struck for creation of NWT-specific courses in core senior secondary courses to replace the Alberta curricula currently being used in most senior secondary courses in the territories. Also very rapid secondary extension is taking place in many communities..
- L1 = Very limited data on length of time in county, etc. No use made of data for publicly available tabulations.
- L2 = Very limited although a declared policy of "parity" for Native students and recent immigrant students would suggest probable expansion over time.
- L3 = Limited and under development, but committed in principal to tabulation and analysis of student participation and achievement by ethnicity, gender, age, and geographic location.
- P = Proposed by Royal Commission, Legislative Committee or Ministry.
- P2 = Implied in the Royal Commission recommendation to direct all students to as "academic and rigorous a program as possible."
- PS = Task Force proposed streaming all secondary grades.
- S = General commitment to increasing the amount of science in the curriculum and to a three-fold increase in students choosing careers in science.
- SC = Reorganisation of Grade 9 by subject discipline and credits.
- Σ In Nova Scotia, the 1987 Report of the Advisory Committee on the Public School Program recommended that "most courses should be taught at one level, the 'regular'" level. The Committee hastened to add, however, that "certain courses" [including most of the traditional "core" arts and science curriculum] might also be taught at another level to be designated as "academic" to indicate a greater breadth and depth of treatment. A third, more challenging level designated as "honours" would also be offered in some cases (Advisory Committee on the Public School Program, 1987). Thus, this Nova Scotia minister's advisory body seemed to propose destreaming and restreaming within the same paragraph.

# POSTMODERN

Table I(b): Announced Provincial Policy Priorities, Elementary and Secondary

PROVINCE/ TERRITORY	REVITALISE INSPECTORATE <sup>3</sup>	STATUTORY RIGHT TO EDUCATION	ENHANCE SCIENCE & TECH OFFERINGS	MORALS/ VALUES ED.	GENDER EQUITY	INTERGROUP EQUITY	NATIVE EDUCATION	REDUCE DROPOUT RATE	ENCOURAGE COOPERATION AMONG SCHOOLS	BUILD PARENT/ COMMUNITY COOPERATION	MINISTERIAL AMALGAMATION
Alberta			X			X	X	X	X	X	
British Columbia				X	X		X				
New Brunswick									XAI		
Newfoundland				P	X		P	P		P	
Nova Scotia	X	P	T	A				Pub	P	PC	X
Manitoba		P	X	X			X	X	V	X	
Ontario			R		X				F		X
PEI			P		P					P	X
Quebec			X		M			P.T.		X	
Saskatchewan				X	X		P		P	PPP	X
NWT						X	X	P		X	X
Yukon							X		X	X	

A = Commission proposed Anti-Racist Ed. be made law.

F = Particularly among boards with small francophone schools.

M = No announced policies other than statements of principles, but Quebec is the only province to report a substantial academic lag in the academic performance and secondary completion of male students in that province

X = Announced formally as government policy.

XAI = Encourage co-operation, integration among all educational institutions and schools.

P = Proposed by Royal Commission, Legislative Committee or Ministry

PPP = Pilot projects focused on building community-school co-operation to meet student needs.

(notes continued on following page)

PC = Proposed by department and School Council model to be presented to stakeholders.

Pub = Publish Drop-Out rates by Board

P.T. = Percentage Target Fixed

R = Reorganise by combining math, science, and technology into one "subject area."

T = Improve teacher skills in the use of technology to teach math and science (pre-service and regional inservice).

V = Vague, "co-operation of all sorts" needed.



Table II: Announced Provincial Policy Priorities, Elementary and Secondary Regarding At-Risk Children

PROVINCE/ TERRITORY	DELIMIT SCHOOL ROLE	PROMOTE INTEGRATED SERVICES	SCHOOLS NOT TO ACT AS SURROGATE PARENTS	SERVICE COORDINATOR IN EACH SCHOOL	MORE ALTERNATIVE PROGRAMS	NUTRITIONAL SUPPLEMENT PROGRAM IN SCHOOL	MORE GUIDANCE AND RESOURCE TEACHERS	ENHANCED DISTANCE EDUCATION CAPACITY	DEVELOP PROVINCIAL SPECIAL EDUCATION GUIDELINES
Alberta									
British Columbia	X	X							
New Brunswick	P	P	P						
Newfoundland	P	P		P					
Nova Scotia		P		P	PR		P		E
Manitoba		P						P	
Ontario									
PEI		P					P		
Quebec					X	X	X		
Saskatchewan		P							
NWT								P	I
Yukon									

E = New Evaluation Guidelines to be developed.

I = Announcement of "inclusive education" policy aimed at mainstreaming and making boards the delivery agent for individual educational programs to all special-needs students.

(notes continued on following page)

## POSTMODERN

X = Announced formally as government policy.

P = Proposed by Royal Commission, Legislative Committee or Ministry

P.R. Proposed by Select Committee, but Department of Education proposes a joint board-department study aimed at rationalising such programmes and serving more students in regular programmes.

P.T. = Percentage Target Fixed

V = Vague, "co-operation of all sorts" needed.

# POSTMODERN

Table III(a): *Principal Policy Rationales, Elementary and Secondary Education*

PROVINCE/ TERRITORY	GLOBALIZED ECONOMY	BETTER FTT WITH JOB MARKET	TECHNOLOGICAL CHANGE	RESOURCE ACCOUNTABILITY	RESTRAINT	DEMOGRAPHIC CHANGE	GREATER EQUALITY OF ACCESS	GREATER EQUALITY OF RESULTS	CHALLENGING MOST CAPABLE	INTEGRATION OF DISABLED	MEETING INDIVIDUAL NEEDS	SUPPORTING TRADITIONAL ECONOMY
Alberta	X	X	X	X	X	X	X	X	X	X		
British Columbia	X	X	X	X							X	
New Brunswick	P	P	P	P								
Newfoundland	X	P	P	P	P	P	P					
Nova Scotia	P	P	P	PA	P	P				P	P	
Manitoba	P	P	P	P	X	P	P			P	P	
Ontario	P	P	P				P			X		
PEI	X	X	X	X	X				X		X	
Quebec	X	X	X	X								
Saskatchewan	X	X	X	P	X	X	P				X	
NWT	X	X		X	X		X	X		X	X	X
Yukon	X	X										

X = Announced formally as government policy rationale.  
P = Proposed by Royal Commission, Legislative Committee, or Ministry.  
PA = Commission proposed ongoing "total audits."



Table III(b): *Principal Policy Rationales, Elementary and Secondary Education*

PROVINCE/ TERRITORY	RURAL DEPOPULATION
Alberta	
British Columbia	
New Brunswick	
Newfoundland	
Nova Scotia	
Manitoba	X
Ontario	
PEI	
Quebec	
Saskatchewan	R
NWT	
Yukon	

X = Announced formally as government policy rationale.  
P = Proposed by Royal Commission, Legislative Committee, or Ministry.  
R = Contextual reality, probably subsumed under "demographic change" rubric.

Table IV(a): Announced Provincial Policy Priorities, Post-Secondary

PROVINCE/ TERRITORY	PROGRAM RATIONALISATION	PROGRAM DIVERSIFICATION	CLEAR INSTITUTIONAL MANDATES	INDEPENDENT EVALUATION OF COLLEGES/UNIV'S	COOPERATIVE PLANNING	ENRICHED RESEARCH ROLE	COMPETENCY- BASED ASSESSMENT	DEMOGRAPHIC DATA ON PARTICIPATION	REDUCED RELIANCE ON GOVERNMENT FUNDING	PARTNERSHIP WITH BUSINESS
Alberta	X	L	X		X	X	P		X	X
British Columbia		X			X		P	IP		X
New Brunswick	1		PDI		PDI		P	I		P
Newfoundland	P				P					P
Nova Scotia	P	CC	OA		OA					P
Manitoba										V
Ontario	P	P	PMS	PC/PU				PL	P	P
PEI										
Quebec	XA			C				X		X
Saskatchewan										
NWT	X	AC			X					X
Yukon										

AC = Creation of Arctic College

C = College Level

CC = Dept. of Ed. proposes a true community college system for first time in Nova Scotia

I = implied in Royal Commission's discussion of proposed student registration/information centre, but, except for gender, not specifically called for.

IP = Strongly implied by B.C. Human Resource Development Steering Committee's statements on the need for equity of access and participation.,

OA = On agenda for change of provincial Higher Ed. Council.

PDI = Royal Commission called for clearly differentiated and integrated roles.

(notes continued on following page)

- X = Announced formally as government policy.
- XA = Clearer articulation of responsibilities among different levels and types of publicly supported educational institutions
- P = Proposed by Royal Commission, Legislative Committee or Ministry
- PL = Limited proposal by provincial Task Force on University Accountability for tracking demographics of university students, faculty, and staff.
- PC = Proposed for Colleges
- PU = Proposed for Universities
- PMS = Proposed Mandatory Institutional Mission Statement<sup>7</sup>
- L = Limited
- V = Vague, "co-operation of all sorts" needed.



Table IV(b): Announced Provincial Policy Priorities, Post-Secondary

PROVINCE/ TERRITORY	ENHANCED DISTANCE EDUCATION CAPACITY	ENHANCED BURSARIES/LOANS	COMPETENCY BASED ASSESSMENT	RADICAL REVISION OF APPRENTICESHIP AND ITS RELATION TO SEC. ED/PSE	MINISTERIAL AMALGAMATION
Alberta	CD		P		
British Columbia			P		
New Brunswick	X	X	P	P	X
Newfoundland			P		
Nova Scotia	P		IVA		X
Manitoba	X				
Ontario		EB			X
PEI					X
Quebec			P		
Saskatchewan					X
NWT	P				X
Yukon					

CD = Continued development and expansion. Alberta already has long played a Canadian leadership role in the development of post-secondary distance education.  
EB = Ontario eliminated all provincially supported bursaries in 1992.

IVA = Improved "vocational assessment" by community college called for.  
X = Announced formally as government policy.  
P = Proposed by Royal Commission, Legislative Committee or Ministry

Table V: *Principal Policy Rationales, Post-Secondary Education*

PROVINCE/ TERRITORY	GLOBALIZED ECONOMY	BETTER FIT WITH JOB MARKET	TECHNOLOGICAL CHANGE	RESOURCE ACCOUNTABILITY	INSTITUTIONAL AUTONOMY	RESTRAINT	DEMOGRAPHIC CHANGE	GREATER EQUALITY OF ACCESS	GREATER EQUALITY OF RESULTS	MEETING INDIVIDUAL NEEDS	ANTICIPATED ENROLMENT GROWTH	PROMOTE LIFE-LONG LEARNING
Alberta	X	X	X	X	X	X		X	X	X	X	X
British Columbia	X	X	X	X			X	X			X	X
New Brunswick	P	P	P	P		P		P	PA	P	D	X
Newfoundland												X
Nova Scotia	P	P	P	P	P	P	P	P			P	X
Manitoba		P	P			X						X
Ontario	P	P	P	P	P	P	P	P		P	P	X
PEI						P						X
Quebec	X	X	X	X	X	X	X	X				X
Saskatchewan												X
NWT	X	X		X		X		X	X	X	X	X
Yukon												

X = Announced formally as government policy rationale.

P = Proposed by Royal Commission, Legislative Committee or Ministry.

PA = proposed at least implicitly in the Royal Commission's discussion of equity and of an appropriate sense of "access" in post-secondary education.

D = Enrolment decline anticipated.

the dilemma—of a common curriculum is balancing its ‘claims to universality against diverse student abilities, interests, and motivation, and against divergent community realities.

At issue in any claim to a truly common or universal curriculum, of course, is the problem of different types of curriculum content (different "levels of difficulty") for students who, for various reasons, seem more or less "able" to cope with challenging content in particular subject areas. The controversy over the relative advantages and disadvantages of homogeneous grouping (commonly referred to as "streaming" at the secondary level) versus heterogeneous grouping continues. Despite the disproportionate influence on recent Canadian educational policy of Radwanski's (1987) report and despite its particularly narrow reading of the existing research literature on streaming (and its more draconian counterpart "tracking"<sup>10</sup> recent policy action on streaming has been, except in Ontario, restrained. A relatively recent advisory committee on secondary programming recommended that Nova Scotia sweep away, but then restore, streaming with a single stroke of the policy brush.<sup>11</sup> Manitoba's new secondary program in fact resembles tracking more than streaming with distinctive programmes offering slates of courses differentiated by difficulty and rigour (Manitoba Education and Training, 1992) (P.E.I. has also recently received a task-force report recommending that all secondary grades be streamed). Just when Ontario was moving toward its version of destreaming grade 9—and reducing the subject-discipline focus of grade 9 by introducing broad cross-disciplinary "areas of study," Manitoba was moving to bring grade 9 into the secondary fold by imposing courses and course credits at that grade level and by clearly demarcating an academic and "vocational" curriculum at all secondary grade levels, including grade 9.<sup>12</sup> Ironically both provinces offered as principal rationale for their actions the pursuit of a smoother and more efficient transition to secondary studies for grade 9 students. The other principal rationale for Ontario's action in ending both "subject credits" and streaming at the grade 9 level is an equity rather than an efficiency rationale, namely, more equal opportunity through delaying formal streaming until grade 10.

The Ontario experiment with destreaming is, in any case, far from what would be necessary to achieve anything like true heterogeneous grouping, and the manner in which it is being implemented is likely to impact much more on rural and Roman Catholic Separate secondary schools than on others. For destreaming, as Ontario has defined it, is focused solely on attacking ability grouping *within* schools—not on attacking streaming by neighbourhood or school. It is a well known artefact of the differing cultural capital in communities stratified, among other things by socio-economic class and demographic characteristics, that urban public secondary schools tend to be "ability-grouped" to a considerable extent by virtue of the neighbourhood in which they are located. Thus, except for rural public and Roman Catholic Separate secondary schools which tend to draw from truly heterogeneous catchment areas, Ontario's destreaming will fall far short of ensuring radically mixed "ability levels" in most Ontario grade 9 classes.

Other recent policy efforts to "assure" higher levels of achievement and attainment have included raising standards, the rigour of grading or expectations for "passing," "acceptable," "excellent" work,<sup>13</sup> proposed definition of a statutory right to receive an education—not just to attend school,<sup>14</sup>—as well as considerable effort concentrated on increasing the amount, quality, and rigour of instruction in the maths, sciences, and new technologies. Ironically, one of the policy directions being recommended in three provinces as a response to the challenge of growing numbers of at-risk children is also very much a quality issue—especially in a difficult fiscal context. With increasing frequency, and usually in the context of a call for co-ordinated and comprehensive services to children, provinces are being challenged to delimit the role of the school more narrowly to the teaching and learning role and thus make room in "the overloaded curriculum" for the time and effort necessary to promote academic success.

The perceived need to increase general levels of achievement and attainment has focused particular attention on the transition from elementary school to secondary school (and in Quebec on the transition from secondary school to CÉGEP). One aspect of policy directed at making the



transition to secondary education less traumatic has been the attention to streaming and destreaming noted above. Two others have been the questions of subject integration and the related question of individual teachers teaching more than one subject to the same students during the first year or two of secondary school. The latter reform has been justified in the interest of a stronger and more supportive relationship between teachers and students during the transition-to-secondary year. In terms of subject integration, only Ontario has opted for subject areas that span traditional subject discipline areas (up to and including grade 9). In British Columbia the Sullivan Commission (1988) came down on the side of greater integration: of subject matter and more cross-disciplinary teaching, but the B.C. common curriculum (Grades 1 to 10)<sup>15</sup> that resulted from the Sullivan Commission recommendations is still organised along subject lines and the most recent program policy announcement there moves to further tighten the focus of Grades 1 to 10 on the core subjects of "English, mathematics, science, and social studies" (Province of British Columbia, 1993).<sup>16</sup> Manitoba has simply endorsed "the integration of knowledge across subject areas" as a matter of pedagogical principle (Manitoba Education and Training, 1992). Finally, confirming a policy originally announced two years ago, Quebec has, within the last three weeks, announced its intention to proceed with the teaching of multiple subjects by single teachers in the first year of secondary school but the focus there is on providing a secure student-teacher relationship, not on subject integration.

Policy changes discussed to this point have been mostly aimed—at least at the level of expressed policy intent—at improving levels of achievement and attainment for students. Other policies, however, especially at the post-secondary level where the creation of centres of excellence and private-sector partnerships have typically gone hand-in-hand with falling fiscal support to students and rising tuition and fees, but also at the secondary level, have zeroed in much more directly on the excellence for the elite agenda. These latter policies seek to ensure that "the best and the brightest" get a world-class technical and scientific education, or, much more rarely, artistic formation. Not only have individual school boards and districts embarked on various "magnet" schools which gather together students judged to have particular promise in certain areas of study and types of technology (e.g., schools specialising in the physical sciences or information technologies, or in technologies associated with particular industries), Alberta and Quebec have quite specifically embarked on policies of encouraging what Quebec has aptly labelled "sectorial schools." These schools, in partnership with private-sector partners in a major high-tech growth sector, offer their students a chance for a particularly strong formation in the current knowledge, understandings, and technical expertise of a field such as aerospace engineering. They are also one of the clearest and boldest embodiments of a widely-shared policy principle of partnership between publicly-funded education and the private sector.

A major agenda driving educational policy in Canada in recent years is efficiency. While it can be argued, and I will argue vigorously later in this report, that far too little attention has been paid to the logical educational-policy implications of the current contraction in government fiscal capacity, efficiency is still a high-profile educational policy agenda item across Canada. In particular, the current fiscal penury of provincial governments (and of the federal government to whose fiscal fate the provinces are closely tied) has led to policy oriented toward doing more with less—or at least struggling to do the same with less. An unprecedented series of amalgamations of education and training ministries has now touched most provinces and the Northwest Territories. The efficiency imperative has led to a variety of policies aimed at systemic rationalisation, and at partnerships among publicly-funded schools and educational institutions and private-sector partners, and among various public-sector educational service providers. In addition to efforts to encourage universities and colleges to pursue particular areas of strength rather than attempting to maintain eclectically comprehensive offerings at all campuses, governments have become more involved recently in trying to integrate, articulate, and rationalise education and training offered by all the public-sector players.

Since institutional autonomy counts for much at the post-secondary level, and especially among universities, governments have generally proceeded cautiously with rationalisation and consultations aimed at rationalisation. One of the major policy levers that some governments have been counselled

to use to promote rationalisation (and to break down institutional protectionism) is competency-based assessment. The underlying principle is a simple one: students seeking admission to any course or program should have their eligibility determined by the knowledge and skills they can demonstrate—not by the credentials they have acquired. While the principle is simple and could go some distance toward reducing expensive duplication in public-sector education as a whole, implementation of competency-based assessment on a general basis would be neither simple nor inexpensive. Such assessment is also quite controversial in terms of the quality assurance it can provide.

Beyond policies directed mainly at increasing attainment and achievement, whether for the many or the few, are policies directed mainly at educational equity, that is, at improving equality of opportunity, treatment, or results. Equality in education, while an integral part of the most basic rationale for public participation in the funding and/or governance of education, is notoriously controversial and difficult to measure. Equality of opportunity, the talisman of modern public education, is almost impossible to define in any way likely to produce broad agreement. Equality of treatment, if it is taken to mean the same programs delivered in the same way to all students, typically reinforces and legitimates the differences in cultural capital that students bring to school with them rather than ameliorating them. And equality of results hinges on just what results one might choose to measure: grades, standardised test results, criterion-referenced test results, competency-based skill tests, income, satisfaction, self-image, contribution to an academic community, or whatever. It is worth the time to recall the controversial and value-laden nature of equality judgements before reflecting on recent equity policy in Canadian education. It is also entirely apropos before reviewing the recent history of the accountability movement in Canadian education.

As noted above, destreaming in Ontario was adopted in the first instance in the belief that mandating heterogeneous grouping within schools would increase equality of educational opportunity and results. In that sense the government of the day viewed the streaming issue in Ontario as fundamentally an equity policy. Streaming, however, or the lack of it, was also an inescapable facet of the "commonalty" of the Ontario "common curriculum" which was as much aimed at improving overall achievement and attainment as at improving equality. In that sense, destreaming was an integral part of a policy intended mainly to improve the quality of education.

The challenges to equity in Canadian education are all those things which make Canadian learners different from one another but especially gender, visible difference, ethnicity, culture, language, wealth, income, age, social class, parental education, and physical and mental handicaps. Five of the provinces have recently either enacted policies or are studying recommendations for measures to bring the participation and achievement of female students closer to those of male students particularly in the sciences and in math. Quebec, however, on the contrary, is currently struggling with what to do about a serious and statistically well-demonstrated academic performance and secondary completion lag on the part of *male* students. Although no policy response has yet been made in Quebec to this new dimension of gender inequity in education, Quebec statistics could well herald a new gender policy challenge in the form of male students who no longer see much future in academically demanding careers—the unwanted fruit of gender-equity policies and beliefs that threaten to redefine rather than eliminate gender inequity in Canadian education.

Anti-racist education has recently become mandated curriculum in Ontario and Nova Scotia. Ontario has, in fact, required that all boards of education submit an anti-racist policy that conforms to certain stipulations of a new provincial policy on anti-racism in education. Sadly, however, neither policy has anything in it that would require monitoring of the relative educational participation and success of minority persons—of the relative "benefits" of publicly funded education to minority persons. Instead, Nova Scotia has chosen to content itself with a mandate for anti-racist instruction, and Ontario with anti-racist instruction coupled with yet another expensive and fundamentally unaccountable "paper exchange" implementation between school boards and the provincial ministry.



Even as this anti-racist policy is being put in place in Ontario, one of the Ontario boards with the largest contingent of minority students is cutting back on English-as-a-Second-Language programs for new immigrants. The new Ontario policy is largely a symbolic stand against racism that systematically ignores the educational fate of minority students in Ontario schools.

In five provinces and two territories the education of Native persons at the elementary/secondary level has been the object of policy-renewal efforts over the last several years. In general, the central problem is, as it has so long been, how to provide an authentic Native presence in a culturally relevant education that nonetheless provides a quality education as understood in non-aboriginal Canada. That challenge is all the more daunting in light of the ongoing self-government aspirations of Native persons. Except perhaps in the Greater Northwest Territories, and particularly in what is being transformed into Nunavut, however, progress toward effective policy on Native education within the assumptions of meaningful self-governance is at best halting.

As Martell (1991) points out, progress toward recognition of both the instructional and governance rights of official language minorities in Canada, and in particular, of Francophones outside of Quebec has been considerable, thanks in main to a long series of Section 23 Charter challenges. Yet, much remains to be done, even in Ontario which has been by all accounts a leader in accommodating the demands of its French-speaking minority for an equal and excellent education—and one securely under the control of Francophone parents and ratepayers. The most recent significant policy movements in this arena were the creation of the Ottawa-Carleton French Language board in 1988 and the establishment in Manitoba, following a recent Supreme Court decision on a Manitoba Section 23 challenge,<sup>17</sup> province-wide French-language school board. At the post-secondary level, the creation of three French-language community colleges in Ontario (even though the circumstances of the last two will be particularly challenging) is another long-awaited step forward in the French-as-a-First Language arena in Ontario.

Not to be overlooked in its impact on the aspirations of secondary—and even elementary—students is the growing gulf between the cost of attending a Canadian college or university and the financial support available to help poorer students attend post-secondary institutions. Especially in a workplace with very little room for young persons with only a secondary diploma,<sup>18</sup> inability to meet the costs of a post-secondary education<sup>19</sup> is a strong disincentive to secondary completion—and to striving for grades and knowledge that open the doors to post-secondary education. In that light, it is entirely relevant to the evolution of recent policy bearing on educational equity that, despite a nine-year freeze on federal student-loan amounts, only one province, New Brunswick, has increased student loan amounts and introduced a small incentive tuition rebate plan to encourage post-secondary students to complete a year of study. The only other significant change in student support arrangements in the face of rapidly rising tuition and fees has been Ontario's recent termination of post-secondary bursaries.

Perhaps the most ominous general equity concern is that over the most vulnerable victims of the current global economic restructuring, that growing legion of disenfranchised Canadian "at risk children." Among their number are no longer simply children of the long-term poor, nor even just children of single-parent mothers, but, increasingly, children of the new poor created by the current techno-economic revolution. Policy discussion and recommendations for responses to this particularly sombre Canadian social reality of the nineties have been numerous; concrete policy acts, on the other hand, have been particularly sparse. As in the United States and in certain parts of Europe, much hope has been pinned on the integration of services for children, although few concrete steps, outside of British Columbia, have been taken in this direction in Canada. The principal *educational* rationale invoked for such integrated services for children is that they would tend to free educators from social service and custodial roles thus allowing them to get on with the business of teaching and learning. Elsewhere the debate on the value of alternative educational programmes for students from disadvantaged situations reached a particularly pointed *dénouement* in Nova Scotia where a legislative select committee recommended extending such programmes while



the Department of Education has sought instead to "rationalise" them by serving more students in regular programmes. The proposal for a children's service co-ordinator in each school in Nova Scotia reflects the bitter irony of efforts to implement such measures in the midst of rapidly declining fiscal capacity. Any resources to support additional services—or even co-ordination of existing services—to at risk students would have to come "from within the system" (Select Committee on Education of the Nova Scotia General Assembly, 1992). Here, as elsewhere, the answer is "no new money," indeed, less and less of old money.

Other policy measures proposed as responses to the at-risk phenomenon include increasing the number of guidance and resource teachers per-pupil (Nova Scotia, P.E.I., and Quebec) and development of provincial special-education guidelines in places where these do not exist in any comprehensive or relevant form. The gesture of Quebec in acknowledging at the provincial level the reality of widespread student hunger in certain areas of Montreal with a free-lunch program should not be underestimated.

For those provinces with small numbers of students scattered over large geographic areas, the importance of distance education as an answer to the challenges to equality and efficiency in a time of diminishing resources has taken on a new importance, and major efforts are afoot in most provinces to extend and improve distance education facilities and capabilities. These efforts are of particularly crucial importance in provinces that had not previously been active in distance education but now find themselves struggling to cope with the educational efficiency challenges of rural depopulation (e.g., Saskatchewan).

Finally, in various ways, according to the traditions and existing arrangements for education in each province, and within the constraints of evolving charter jurisprudence on the subject, provinces continue to struggle to find a place in publicly-funded education for religious education, religious instruction, and, more broadly, of morals and values education in general. Newfoundland has recently announced its intention to end the denominational structure of public education in that province, but to do it in a way that retains an important place for the churches in the educational life of the province. In Manitoba, a Panel on Education Legislation Reform proposed a new provincial Education Act "requiring school boards to conduct religious exercises for pupils whose parents petition the school board for such exercises and that these exercises be conducted in accordance with the provisions of human rights legislation and The Charter of Rights and Freedoms" (Panel on Education Legislation Reform, 1993). How such provisions would survive the logic of the Elgin County and Zylberberg decisions<sup>20</sup> remains to be seen, but the dispute over religion and religious instruction in publicly-funded schools appears far from over.

### **III Accountability and Educational Purpose**

Excellence is the leading official educational policy priority in Canada at the moment. And behind widespread demand for increased quality is an equally irrepressible demand for accountability.

The excellence agenda is driven by growing resource scarcity on the one hand and on the other by public perception of inferior quality in Canadian education—a perception fuelled by a series of federal and business-sponsored reports which attribute an important part of the current Canadian economic malaise to low quality and standards in education. In response to this "quality challenge" and especially to rather low rankings of many participating Canadian provinces in international comparative math and science achievement tests such as the International Assessment of Educational Progress (IAEP), governments in all provinces except P.E.I. (to date) and the Yukon have either embarked upon or reinforced existing standardised or criterion-referenced testing programs or are studying proposals to do so. Where, until recently, only two provinces (Quebec which continued to make extensive use of subject exams throughout the seventies and eighties and Alberta which reinstated provincial exams during the eighties)<sup>21</sup> were engaged in any form of

province-wide testing, all (except P.E.I., which in light of the expressed philosophy of the Callbeck government on education, seems likely to follow) are now engaged in planning for some degree of secondary testing and most are actively considering plans for testing at certain elementary grade levels. All provinces and the Northwest Territories, as well, are now participants in the School Achievement Indicators Program co-ordinated by the Council of Ministers of Education of Canada.

The use being made of (or being contemplated for) exam results varies from province to province. At one extreme are Manitoba with plans for a province-wide examination in one major subject area each year through 1996-97 and encouragement of district-level subject exams in secondary 3 and 4, and Ontario with its projected suite of "benchmarks" and a recent *ad hoc* provincial reading and writing examination based on a prescribed grade 9 nutrition unit. At the other are Quebec and Alberta, and to a growing extent also British Columbia, each using exam results for a variety of public reporting purposes. Quebec's annual "School Indicators" publication summarises provincial subject and international exam results, among many other fiscal and quality indicators. Alberta's annual "Achieving the Vision" series takes the form of an annual report on public education in Alberta, and, for all of its conceptual and other simplifications, reports exam results and other quality indicators in a way particularly accessible to the general public. British Columbia has proceeded with school-level performance report cards.

The dominant recent policy response, then, to the accountability challenge—still seen primarily as a problem of *quality* assurance—facing Canadian education has been increased achievement testing. Despite well-known difficulties with standardised exams (their focus on easily-measurable rather than higher-level intellectual processes, the cultural, linguistic, and class biases hidden in the subjective and value-laden choices of test items, their relative helplessness in assessing artistic quality or creativity, and so forth),<sup>22</sup> provincial governments have returned to the testing fold with a vengeance over the last decade. However rude and suspect, standardised tests are at least a barometer of student learning that offers a modicum of comparability over time and space. Even with the strong increase in achievement testing in Canada in recent years, however, Canadian students are still far less "tested" than students in many other jurisdictions.

A fundamentally neglected dimension of educational accountability in recent years has been that of equality of benefit from educational services—the degree to which learners from varying socio-economic, ethnic, and linguistic backgrounds, for example participate in and achieve in particular educational programmes and course sequences. With the exception of a few hopeful signs,<sup>23</sup> the accountability movement so evident in recent Canadian educational policy has ignored accountability for equitable benefit from the public educational investment. In a context of shrinking resources and demographic revolution, this reluctance to tabulate and report clearly detailed educational participation, attainment, and achievement data along demographic lines constitutes a fundamental threat to the equality agenda of publicly funded education. *In particular, the current absence of data on the educational fates of minority students in our schools and post-secondary institutions invites charges of ubiquitous and undifferentiated systemic discrimination along racial lines and tends to hide, devalue, and nullify any successful efforts on the part of particular schools or institutions to improve the educational achievement of disadvantaged groups in society.*

Perhaps the most unusual policy response to the accountability challenge is a Nova Scotia decision to "revitalise" its school inspectorate, especially by conferring on provincial inspectors a strong mandate for ongoing liaison with local school councils. While this is but one element in ongoing reform in that province, Nova Scotia was willing to risk the regressive connotations for most Canadian educators of a "revitalised" inspectorate. Such a move is perhaps symptomatic of a context which led a legislative select committee to denounce the lack of accountability in Nova Scotia education in particularly scorching terms (Select Committee on Education of the Nova Scotia General Assembly, 1992).

The Alberta arena offers a telling example of the fundamental weakness of the "excellence



for all students" goal when a strong accountability pressure drives extensive testing for "quality assurance." In the end, Alberta has had to define two "standards," a "standard of excellence" for the few, and an "acceptable standard" for the many. Meanwhile, Alberta continues to worry out loud in each successive edition of its school system report card about the fate of minority students in Alberta schools (especially Native students)—and to proceed with increasingly dramatic cuts in education grants to Alberta school districts.

Equality as an educational-policy goal, however defined, should not be tied to what a colleague of mine has so aptly labelled a "moralistic fallacy," (Sanders, 1991) the reductionism of believing that, because liberal democratic principles make us *wish* that all students were equal, they somehow are. Rather, true equality consists in the principle of equal benefit from educational investment across lines of race, ethnicity, language, country of origin, socio-economic class and so forth. Put bluntly, neither a "common curriculum," nor any amount or type of destreaming,<sup>24</sup> nor any provincial or national exams or benchmarks, none of these, can make all students "equals" in their capacity, readiness, and motivation to learn. The equality dimension of public education should take aim, then, not at the oxymoronic absurdity of "excellence for all," but rather at an equitable distribution of educational excellence across lines of demographic difference. That is the real and singular challenge of equality of educational opportunity in a time of unprecedented demographic change and fiscal constraint.

#### **IV Governance Reform and Rationales**

The most striking governance reform in Canadian education in recent years is clearly the wave of ministerial amalgamations that united the elementary/secondary education portfolio with higher education or higher education with training or both in half the provinces and in the Northwest Territories during 1992 and 1993. In all cases these amalgamations were justified by a need for increased efficiency—and by the increased co-ordination and rationalisation of services and infrastructure that governments believed such efficiency to require.

Elsewhere, changes in governance can be grouped into two classes: experiments with limited degrees of school-level governance and school board or district restructuring initiatives. Certainly the most celebrated experiment (in terms of national media exposure) with school-level governance has been that undertaken not by a province but by the Edmonton school district. In Edmonton, a charismatic director of education has moved toward quite extensive building-level administration, including, for most schools, control over the school's budget and a choice about whether to purchase many basic services jointly with the board or independently.

In British Columbia, the reforms following the Sullivan Commission report included experimentation with School Councils not unlike those mandated by Quebec legislation, and in Nova Scotia a legislative select committee has recommended changes to the existing two-level school governance (local area boards of trustees on the one hand, and school boards on the other) that would end the power of the local area trustees to levy school rates thus ending a system which allowed a limited but very local control over supplementary property taxation for school purposes.<sup>25</sup>

In Prince Edward Island a task force on education recently found itself so divided on governance as to demand a minority report (P.E.I. Task Force on Education, 1992). The contentious restructuring recommendation of that committee was a proposal to create a "Provincial Agency" composed of trustee representation from the five regional boards and from a cross-section of society and business that would absorb many of the current administrative and program support functions of the current regional boards in P.E.I. A dissenting task force report deplored the potential for further bureaucratic waste in creating such a third-level of school governance at a time when all efforts should be concentrated on greater efficiency.

For its part, Newfoundland, as noted earlier, has set about trying to end the denominational



structure that has defined publicly funded education in that province since Newfoundland's entry into confederation. Finally, although the terms, conditions, and structure of provincial per-pupil grants to private schools have changed little recently in those provinces which offer some type of support to eligible private schools,<sup>26</sup> such support has generally been subject to at least the same restraint pressures as funding for public-sector schools.

## **V The Challenge of the Nineties and Beyond**

The most profound change in Ontario society—and in those of the more populous provinces in general over the last generation, has been a demographic revolution. Not without reason has Barbara Ward recently characterised Canada as "the world's first international nation" (cited in Royal Bank, 1992). The other greatest changes impacting on publicly-funded education and its socio-economic context are globalisation of the world's economies and a technological revolution whose productivity logic leads irresistibly toward the substitution of technology for human labour wherever possible and on as broad a scale as possible.

The fiscal implications of the current economic restructuring are fundamental for the future of publicly-funded education in Canada and elsewhere. Two basic views of the resource futures of public education in Canada are possible. One is that, like traditional recessions, the current economic downturn will right itself, and, with proper education and training policies, the Canadian middle-class will one day return to well-paying jobs that will rejuvenate stalled provincial and federal tax machines. The other view is that the current restructuring is so fundamental that Canadian workers (like European and, increasingly, even Japanese workers, it should be noted) will not be going back to secure, well-paying mass employment, not, that is, unless some truly fundamental transformation of the relationship between work and income occurs. A disturbing corollary is that more cuts and deeper cuts in public services types and levels awaits Canadians—not a period of recovery and rebuilding in the public sector.

The assumption one makes about the nature of the current "recession" is fundamental to one's view of educational policy and its context. To the extent that one assumes an economic recovery that puts Canadians back to work, one concludes that the tax, debt, and deficit pictures are, however tenuously, manageable. In terms of educational policy, one is then free to assume that, by "working smarter," harder, and in closer partnership with one another and with the private sector, schools and educational institutions can ultimately continue to do more or less the same things in more or less the same ways as in the past. By sharpening the efficiency of education, such an assumption would allow, one could muddle through until better times return—and then reap the benefits of a more efficient and efficiently structured delivery system. One might even, with such an assumption, have grounds for believing that the traditional *general* human-capital logic will prevail and that higher average levels of achievement and attainment will translate into renewed prosperity.

Unfortunately, as Galbraith points out with gripping lucidity in *The Culture of Contentment* (1992), there is little to support this optimistic picture and much, on the contrary, to suggest emergence of a fundamental economic crisis as the labour, employment earnings, and tax-revenue prospects of post-industrialised economic powers stagger under the impact of a technologically-driven economic imperative. If this grim view of the future proves to be closer to reality, much of what has passed for basic wisdom in the rationale and understandings that Canadian provinces have brought to educational policy-making in recent years will be exposed as both intellectually and practically vapid. While there are certainly further efficiencies one might reasonably extract from publicly funded education,<sup>27</sup> very real limits exist to the capacity to do more with less. Even if the governance of education were largely privatised through extensive use of vouchers or educational tax credits or through the funding of private schools under terms which favoured the transfer of a significant portion of public sector students to "private" schools, service reduction would be the inescapable order of the day. In short, even if Ontario played the privatisation card to the maximum extent, anything like the current shrinkage in real-dollar resources would necessitate major

reductions in the types and extent of education provided at the public expense.

Because I remain convinced that Galbraith's view of the future is regrettably far more credible than that upon which most recent educational policy-making in Canada is founded,<sup>28</sup> **I trace the Canadian evidence for this view of the short and medium term future in detail in a forthcoming book (Paquette, 1994 a).i** I believe that educational policy-making in Canada is generally out of contact with three particularly crucial realities of educational policy and its context in the nineties and beyond. First, some very difficult and painful choices await Canadian and Ontario education—inescapable choices between what will *and what will not* be funded, choices between diversity of program and concentration of resources on the most necessary priorities, choices between geographically widespread access to programs and program viability, choices between the "many routes" to the same learning imperative of life-long learning and a resource reality that cries out for streamlining, rationalisation, and downsizing. The list is only a sample of the politically unwanted choices that almost surely will force themselves with increasing urgency on the educational policy agenda of the nineties and beyond. *Only those who postulate 'a most unlikely recovery in provincial (and hence, indirectly, in federal) tax revenues believe provincial governments will be able to continue to provide the range, kind, and quality of services currently offered.*

The second cruel but crucial contextual reality is the irresistible logic of the new techno-economy, a logic that favours a superb education for a technological and managerial elite—not higher educational attainment for all. As Menzies (1989) reminds us in her insightful and prophetic analysis of the nature and consequences of the current restructuring "recession," business and industry have, given the current rules of the economic order, only one choice, the choice to "automate or evaporate." That is the long-term and ultimate direction of the current restructuring—not merely exportation of low-skill work to low-wage countries combined with replacement of Canadian labour with technology, but utilisation of technology to replace human labour wherever and whenever in the world doing so will result in productivity gain. The bottom-line human-capital priority for educational policy in the lean-and-mean nineties is clear—excellence for that diminishing segment of Canadian (and other post-modern societies) that will play an active and creative role in the techno-economy that looms before us. It is no accident that the excellence agenda has largely displaced the equity agenda in recent educational policy-making in Canada that is substantive rather than symbolic.

The third irresistible force pressing upon Canadian education poses strong problems in light of resource penury and of the other two megatrends discussed above. The demographic revolution in Canadian society—and especially in Ontario society—seems likely to undermine electoral support for any publicly-funded education that cannot *demonstrate in clear and widely understandable terms* some equity across demographic lines in the benefits, especially private benefits, of publicly-funded education. In the conjuncture of resource penury and decreasing access to secure and well-paying employment that seems likely to define a new, highly bifurcated social order as the global techno-economic revolution continues, more than policy rhetoric and symbolic policy will be needed. More will be needed even simply to convince minority groups and women, among others, that public educational investments in secondary and post-secondary education benefit them economically in any equitable way.

Equality of opportunity founded upon the myth of excellence for all is an empty promise that, in a regime of extreme resource constraint, seems likely to undermine its own most fundamental claims on public support. As the Alberta experiment with a single standard has shown, and as the Ontario common curriculum experiment will ultimately confirm, no policy or policy regime can assure that all children obtain the same basic knowledge and skills at the same level of competence and ability to perform. In the end, children *are* different—different in abilities, intelligence, and motivation—and different in the kinds and levels of cultural capital that they bring to their education.



Indian policy in Canada tragically illustrates the consequences of policy that promises what it cannot deliver. Surely in the rapidly contracting fiscal capacity of the nineties it is no less than folly to send publicly-funded education in quest of the policy oxymoron of excellence for all. The shallowness of policies that vaunt their provision of equal opportunity for special needs students as they slash or eliminate completely special-education funding (as, for all practical purposes, Ontario did in 1989), or of anti-racist policies that provide not a shred of accountability for educational equity (and even allow boards of education to cut English-as-a-Second-Language services to immigrant students as an economy measure) is clear for all to see.

The ultimate test of educational fairness is not whether all students achieve the same basic learnings, for they never will and that needs to be said clearly and unequivocally in the face of a vast operation of dissimulation that increasingly defines—and undermines—the legitimate and critically important excellence dimension of the public interest in education. *The only defensible test of educational equity—and the one that current Canadian policy and especially evaluation and assessment policy systematically ignores—is the degree to which persons from diverse demographic backgrounds participate and succeed in particular types of courses and programmes that lead somewhere in an increasingly difficult-to-penetrate labour market.* In short, what is urgently needed in the current context of publicly funded education in Canada is a healthy dose of realism coupled with renewed commitment to facilitating—and monitoring—equitable benefit from the public educational investment. Equity of benefit is, both politically and practically, just as important as rigorous assessment of quality and efficiency.

One of the consequences of the technology-driven death of mass employment will be renewed attention to the non-economic purposes of publicly-funded education (especially promotion of social harmony and order), and also to the oldest and most venerable justification for human learning—the joy and satisfaction of knowing itself. As educational policy narrows and clarifies its program focus in the enforced programmatic restructuring and downsizing of the late nineties, the importance of the most ancient *arts-artis-gratiae* rationale for education will resurface to take its rightful place. Learning for its own sake as a mainstream policy issues seems likely to re-emerge over the next decade from the shadow into which it has been cast by a faltering general human-capital theory during the first phases of the current great economic restructuring.

Finally, the tenuous but very real promise of a better life for most that the new technologies offer will be realised or not according to the ability of developed nations to agree among themselves on such thorny issues as tariffs, barriers, and subsidies, but also, and equally, on such looming issues as comparable tax and social-benefit policies, worksharing, ways of promoting dignity and meaning in the lives of those who are not directly employable in the global techno-economy, and ultimately on the issue of access to education itself. Education, after all, is arguably the largest subsidy governments offer to the private-sector and it is no accident that the OECD has currently embarked on an ambitious project aimed at developing comparable fiscal indicators for educational spending.

The final point, then, is that while there are more or less intelligent and appropriate policy responses at the provincial level to the context of the nineties, the ultimate fate of education in Canada, as elsewhere in both the developed and less developed world, will depend on our ability to agree on how to move beyond the simple logic a technology imperative that seems to lead toward a new but particularly unstable feudalism. For a high-tech feudalism of the twenty-first century based solely on an automate-or-evaporate ethos would be one in which the high-tech lords and ladies of the new order would have very little *use* for serfs.



## ENDNOTES

<sup>1</sup> I will consider both officially adopted change efforts and policies proposed by officially mandated policy advisory bodies.

<sup>2</sup> Given the widely recognized importance of making the most efficient and rational use of scarce educational resources, it would be myopic to restrict discussion to elementary/secondary policy only. The whole, in publicly funded education, ought to be more than the sum of its parts—and in any case, certainly not less!

<sup>3</sup> See, for instance, Coombs' (1983) discussion of the relations between equity, efficiency, and quality.

<sup>4</sup> For example, see Alberta Education, 1991, Sullivan, 1988, The Commission on Excellence in Education, 1992, Province of Nova Scotia, 1988, Callbeck, 1993, Phillips, 1993.

<sup>5</sup> These are subjects that I explore in terms of Canadian Occupational Projection system data on employment trends and Statistics Canada census data on employment income and educational attainment both in a forthcoming book (Paquette, 1994 a) and in Paquette, In Press b.

<sup>6</sup> Specifically, policy that has little direct influence on what is taught or how it is taught and which has little or no meaningful and direct accountability monitoring, in short, policy that is mainly an expression of intent devoid of credible implementation and monitoring.

<sup>8</sup> See Table I, p. 8

<sup>9</sup> See (Ministère de l'Enseignement Supérieur et de la Science, 1993).

<sup>10</sup> Streaming, at least in theory, is the grouping of students by their perceived "ability" in different subject areas (e.g., a student might be viewed as "capable" of only basic work in math, but eminently capable in English and hence placed in a basic math course, but an advanced or accelerated English course). Tracking, the usual practice in the American schools studied by Goodlad and whose data Oakes reworked in the single study to which Radwanski (1987) repeatedly makes reference, grouping by program in which students perceived as less capable generally take all their courses at a reduced level of difficulty while those perceived as more capable take all their courses at an advanced level. Of all provinces, Manitoba has a secondary program which most closely approaches tracking (Quebec reserves its tracking for the CÉGEP level) while Ontario theoretically had, until the advent of the common curriculum and "mandatory destreaming," a program that closely resembled "streaming." For a broader review of the research literature on tracking and streaming, see Paquette and Allison, 1988.

<sup>11</sup> See Advisory Committee on the Public School Program, 1987.

<sup>12</sup> Manitoba also, it should be noted, endorsed "integration of knowledge across subject areas," not, however, the creation of multiple-subject "areas of study," as in Ontario (Manitoba Education and Training, 1992).

<sup>13</sup> One of the clearest examples of this was Quebec's controversial raising of the basic secondary "grade from 50% to 60% in 1982" (Ministère de l'Éducation, 1992)."

<sup>14</sup> In Manitoba and Nova Scotia.

<sup>15</sup> In the end B.C. opted for an ungraded primary and a "common curriculum" (much more oriented toward traditional subjects than Ontario's recent *Common Curriculum*). Only very recently has B.C. terminated the ungraded primary experiment.

<sup>16</sup> The same document restores promotion by grade in grades 1 through 3 where B.C. had been trying to implement an ungraded primary and calls for "regular province-wide assessments of student performance in core subjects." Thus the B.C. common curriculum in its current form has a strong conceptual orientation toward traditional subject disciplines in contrast to the "decouraging" mandated by Ontario's common curriculum.

<sup>17</sup> [1993] 1 SCR 839.

<sup>18</sup> This appears to be increasingly the case in Canada, even before the current "recession" as I demonstrate elsewhere (Paquette, 1994 a, Paquette, In Press b).

<sup>19</sup> Or even, inability to meet them without incurring an insupportable debt.

<sup>20</sup> *C.C.L.A. v. Ontario* (Ministry of Education) 65 D.L.R. (4th) 1 (C.A.), and *Zylberberg v. Sudbury Board of Education*, (1988), 65 O.R. (2d), 641 (Ont. C.A.).

<sup>21</sup> In Quebec, exam results are not only used for systemic quality evaluation purposes; they are also used to correct or "moderate" grades assigned by secondary subject teachers that are beyond a certain statistically defined allowable variance from test standings achieved by individual student in each subject area tested.

<sup>22</sup> In (Paquette, 1989)) I reviewed the underlying problems and dilemmas associated with assessing educational quality. While evaluation as a field has been particularly active since then, the endemic problems of subjectivity (hidden or overt) and bias remain essentially intractable. Nor do holistic grading schemes of written work, however sophisticated, overcome these difficulties.

<sup>23</sup> By far the most hopeful was the publication of provincial secondary exam results in Quebec by maternal language in 1989 (Proulx, 1989; St-Germain, 1988). Also Quebec has laid some important data groundwork (e.g., standardized course codes for university courses) which *could* lead to comparative analysis of post-secondary program participation along demographic lines. Elsewhere, a recent Ontario "Task Force on University Accountability" (1993) recommended standard-form information on gender, race, and ethnicity for faculty, students, and staff, and on geographical origins for students, and the Northwest Territories have taken over from Alberta responsibility for its own student record system and have begun collecting data in a way that it can be analysed by ethnicity ethnicity, age, gender and geographic distribution "to ensure equity" (Schools Branch, 1992).

<sup>24</sup> This includes radical destreaming that would necessarily involve mandatory bussing of students to ensure school populations heterogeneous in all the myriad characteristics that could affect learning.

<sup>25</sup> Although little has changed recently in their mandate and relationship to the Quebec Ministry of Education on the one hand or to their school board on the other, Quebec legislation has long required School Councils to further the interests of individual schools, in particular by carrying local concerns and interests to the board level.

<sup>26</sup> Notably, Alberta, British Columbia, Saskatchewan, Manitoba, and Quebec.

<sup>27</sup> In particular, reduction of the cost and size of local and central bureaucracies, rationalisation of course and program offerings, and so forth.

<sup>28</sup> I trace the Canadian evidence for this view of the short and medium term future in detail in a forthcoming book (Paquette, In Press a).

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**École et culture :  
Créer une culture scolaire qui  
responsabilise les élèves et les  
enseignants tout autant qu'elle crée  
des liens entre l'école, la famille  
et la communauté**

**Benoît Cazabon**

January 5, 1994





*École et culture: Créer une culture scolaire qui responsabilise les élèves et les enseignants tout autant qu'elle crée des liens entre l'école, la famille et la communauté, January 5, 1994.*

Cazabon advocates a number of measures to create a culture in Franco-Ontarian schools that will create stronger links among schools (students and teachers), the Franco-Ontarian family, and the community. He states that the mere presence of schools does not guarantee the survival of a culture. One measure is to place more responsibility on students and teachers to help in the creation of these links by living their language (especially their oral language) and culture in their lives outside the school.

He advocates the recognition of French as an official language in Ontario since research shows that step will strengthen the position of the language and culture in the province. He also calls for an autonomous Franco-Ontarian school system from the earliest years to university including teacher education, a coherent policy of admission and valid language tests for placement in French-language schools and special programs directed to students' linguistic needs, and the development of acceleration and enrichment programs in the elementary program. Also needed is the creation of a school culture where second language acquisition and use do not interfere with the learning and use of the first language. To attain these ideals, a solid grounding for prospective teachers in Franco-Ontarian schools of linguistics, socio-linguistics and culture, and a more active role for the schools in Franco-Ontarian adult education and in the community are needed. A "Programme d'animation culturelle" comprising some reflections on language use, identities, and cultural sharing would be valuable. Cazabon calls for those who are admitted to the schools to voluntarily agree to a code of responsibilities to the language and culture, for more resources that reflect Franco-Ontarian language and culture. He ends his essay with a plea for teachers in the Franco-Ontarian schools to be knowledgeable about the culture even though they may not have been born in a minority community. To create an educational culture that weaves together the school, the family, and the community, there must be an awareness of the research of the last twenty years into the Franco-Ontarian heritage. The region around Sudbury could well be the location of pilot projects involving parents, community centres, and other institutions. School projects that involve parents and community and are related to the families' welfare, environmental issues, new technologies, cooperative services and job opportunities will create new prospects for all. Relevance, authenticity, functionality, and realistic goals should ground the projects in the very roots of the community's fundamental values. Such projects would give the Sudbury region a cultural and an economic boost.

\* \* \* \* \*

L'auteur prône un certain nombre de mesures destinées à créer dans les écoles franco-ontariennes une culture qui suscitera des liens plus solides entre l'école (élèves et enseignantes et enseignants), la famille franco-ontarienne, et la communauté. Il affirme que la seule présence de l'école ne garantit pas la survie de la culture. L'auteur préconise notamment de confier aux élèves et aux enseignantes et enseignants une plus grande responsabilité dans la création de ces liens, en les invitant à vivre leur langue (tout particulièrement leur langue parlée) et leur culture dans leur vie hors de l'école.

L'auteur réclame la reconnaissance du français comme langue officielle en Ontario, puisque les recherches démontrent que cette mesure renforcera la position de la langue et de la culture dans la province. Il demande aussi la création d'un système scolaire franco-ontarien autonome, dès les premières années et jusqu'au niveau universitaire, y compris la formation des enseignantes et enseignants, l'adoption d'une politique d'admissions cohérente, la mise sur pied de programmes spéciaux axés sur les besoins linguistiques des élèves, et la mise au point de programmes d'accélération et d'enrichissement au niveau élémentaire. L'auteur signale également la nécessité de créer une culture scolaire dans laquelle l'acquisition et l'usage de la langue seconde n'entravent

pas l'apprentissage et l'usage de la première langue. Pour réaliser ces idéaux, il faut donner aux candidates et candidats à l'enseignement en milieu franco-ontarien une solide base linguistique, sociolinguistique et culturelle. Les écoles doivent aussi assumer un rôle plus actif dans l'éducation des adultes franco-ontariens et dans la communauté. La création d'un programme d'animation culturelle, alimenté par des réflexions sur l'usage de la langue, les identités et le partage des cultures, serait utile. L'auteur demande que les élèves acceptent volontairement, au moment de leur admission à l'école, un code de responsabilités envers la langue et la culture. Il revendique également des ressources plus importantes qui reflètent la langue et la culture franco-ontariennes. L'auteur conclut par un plaidoyer : les enseignantes et enseignants des écoles franco-ontariennes doivent mieux connaître la culture, même s'ils ne sont pas issus d'une communauté minoritaire. Pour créer une culture éducative qui unifie l'école, la famille et la communauté, il faut se fonder sur les recherches menées depuis vingt ans sur le patrimoine franco-ontarien. La région de Sudbury se prêterait bien à des projets pilotes qui mettraient en jeu les parents ainsi que les centres communautaires et d'autres institutions. Il faudrait également lancer des projets scolaires auxquels participeraient les parents et la communauté et qui auraient pour thèmes le bien-être des familles, l'écologie, les nouvelles technologies et les débouchés professionnels. De tels projets créeraient de nouveaux horizons pour toutes et tous. Les projets doivent puiser aux sources mêmes des valeurs fondamentales de la communauté et doivent être caractérisés par la pertinence et l'authenticité, présenter un caractère fonctionnel et tendre vers des objectifs réalistes. La mise en œuvre de projets de ce genre susciterait un renouveau culturel et économique dans la région de Sudbury.

## Plan des concepts

Dans l'introduction de son livre, Jean-Claude Forquin précise ceci:

De toutes les questions (et de toutes les mises en question) qui ont été suscitées par la réflexion sur les problèmes d'éducation depuis le début des années soixante, celles qui touchent à la fonction de transmission culturelle de l'école sont à la fois les plus confuses et les plus cruciales. C'est qu'elles concernent le contenu même du processus pédagogique et interpellent les enseignants au plus profond de leur identité. S'il n'y a pas en effet d'enseignement possible sans la reconnaissance par ceux à qui l'enseignement s'adresse d'une légitimité de la chose enseignée, corollaire de l'autorité pédagogique de l'enseignant, il faut aussi, il faut d'abord que ce sentiment soit partagé par l'enseignant lui-même.<sup>1</sup> (p.7)

Chacun des mots de ce texte constitue un mot-clé du domaine portant sur la culture et l'école. Bien que ce domaine<sup>2</sup> nous soit familier, nous ne pouvons nous empêcher de marquer notre profonde humilité devant l'importance du sujet et la magnitude de sa portée. Cette affirmation vaut en soi et elle est d'autant plus nécessaire ici que ce texte constitue des notes et non un développement. On excusera l'absence de liens de cohésion. Nous espérons que la cohérence est sauve.

A. "La culture se juge à des **opérations**, non à la **possession** de produits"<sup>3</sup>. Il s'agit, en effet, d'une confusion fort répandue qui veut que l'on mesure la richesse d'une culture comme on le ferait d'un trésor de pirates. Il ne suffit pas d'avoir des écoles pour que la culture y soit présente. Encore faut-il savoir ce qui s'y passe. Or, ce qui s'y passe dépend de l'identité de ceux et celles qui y détiennent une autorité et qui l'utilise selon le sentiment que telle ou telle culture leur inspire. En contrepartie, les enseignés donneront à cette culture une légitimité dans la mesure où ils se sentiront concernés par le contenu de l'enseignement. C'est pourquoi la phrase de départ est si riche. Quelles opérations unissent l'enseignant et les enseignés? Quelles sont les raisons de leurs interactions et quelles portées visent-elles? Et nous saurons quelle culture se vit dans l'école. Entre autres, la culture s'opérationnalise par l'oralité. "Une nouvelle information n'est reçue et assimilée, ne devient appropriée et mémorisante que lorsque le destinataire est parvenu à la mettre en forme à sa manière, à l'énoncer à son compte en l'introduisant dans sa conversation, dans sa langue habituelle et dans les cohérences qui structurent son savoir antérieur."<sup>4</sup> Cette phrase devrait nourrir les principes qui commandent les diverses situations d'interlocution scolaire.

Donnons trois exemples de situations complexes.

1. l'élève en difficulté d'apprentissage ou aux prises avec des difficultés particulières peut mettre en forme par le langage quoi, au juste? C'est la limite de sa culture. Le reste n'est que surimposition.
2. L'élève dont la langue première n'est pas la langue d'enseignement est en mesure de ré-expliciter quoi, au juste? Ce sera la limite de sa participation à la culture de l'école, donc de son apprentissage. Le reste sera une forme de violence symbolique contre sa personne.
3. L'enfant doué capable de reprendre dans ses propres termes une vaste gamme de propos métacognitif et métalinguistique pourra le faire jusqu'où, au juste? Ce sera la qualité des opérations qu'on lui permettra de manipuler qui en décidera. Le reste sera en deçà de ses capacités. Autre forme de violence: celle des petits Mozarts assassinés.

B. La culture scolaire, c'est la capacité de remonter des **produits** aux **pratiques** pour en apprécier les **gestes**, les **principes** sous-jacents et les liens à l'**Histoire**. Une perspective essentialiste a voulu, et veut encore, que l'on comptabilise la qualité d'une culture aux produits que l'école peut mettre en montre. Il mériterait de revoir la qualité de ces produits culturels en soi mais surtout à la lumière d'une perspective constructiviste, c'est-à-dire à ce que font les personnes engagées dans un processus



d'acculturation. Il en découle que les moyens d'observer ces agir doivent correspondre à l'objet: interactionisme symbolique, ethnométhodologie, herméneutique, psychologie sociale, pour les plus importants moyens d'analyse.

Ce regard critique jeté sur nos programmes devrait tenir compte des pratiques en tant qu'ensemble de procédures et de processus créatifs plutôt qu'à titre d'activités de reproduction seulement. Il devrait tenir compte des gestes en tant que posés par des individus réels. Il devrait tenir compte des principes qui fondent ces pratiques. Enfin, il devrait tenir compte de l'Histoire, c'est-à-dire de l'humanité inscrite dans ces pratiques. Une culture du paraître a faussé la signification profonde de la culture scolaire. On se contente trop souvent de reproduire des gestes sans en comprendre l'ancrage réel dans le vécu des élèves, sans en connaître la raison des principes directeurs, sans inscrire les pratiques dans l'histoire des Franco-Ontariens et de l'humanité. L'analyse de la culture scolaire, que ce soit dans les programmes, les manuels ou les pratiques elles-mêmes, devrait comprendre une grille d'analyse au moins aussi complexe que la culture l'est.

C. La culture est le fait de **mémoire** et de **volonté**. Trop souvent le discours identitaire a servi de palliatif aux esprits manquant de prises sur leur agir culturel. On ne doit pas confondre le besoin d'identité et d'appartenance et le besoin d'un milieu culturel. Le premier dépend de la qualité du second. Souvent le discours identitaire comme propagande peut se tourner contre ses promoteurs. Prêcher aux jeunes le besoin d'avoir une volonté identitaire et d'appartenance est un geste inutile et même, quelquefois, nuisible. La volonté vient naturellement avec la mémoire. La **mémoire** s'inscrit dans des **gestes** reproduit naturellement et volontairement dans des institutions, en présence de semblables, et dans le but de produire des événements. L'**activité** scolaire doit se muer naturellement en **événement**.

Il ne faut pas culpabiliser ceux qui évoquent le discours identitaire en lieu et place d'un discours culturel. Ils réagissent défensivement à une autre forme de violence: l'absence de reconnaissance officielle de leur langue et culture, l'absence d'institutions authentiquement de langue française, l'absence de services ou de débouchés pour les expertises et les produits culturels de langue française. Leur action est une forme de contrôle devant la faiblesse de la volonté. Ils ne comprennent pas que l'absence de volonté vient d'une absence de mémoire. Et que la mémoire s'installe dans les agir...: ainsi se font ou se défont les mailles d'une chaîne qui se renforce ou s'affaiblit.

D. "La culture est le contenu substantiel de l'éducation, sa source et sa justification ultime: l'éducation n'est rien hors de la culture et sans elle."<sup>5</sup> Peu importe l'acception que l'on conserve de la culture (l'auteur en dénombre cinq), elle définit le projet scolaire. Trop souvent dans le débat stérile qui oppose les sciences naturelles et les sciences sociales, ces dernières ont fait les frais d'une évacuation simpliste parce que leurs faits ne résistaient pas de la même façon aux **explications** dites scientifiques. Ce faisant, on a négligé de reconnaître les forces des sciences sociales dans les concepts grâce à leur pouvoir de **compréhension** et d'**interprétation**. Chaque jour de nouveaux contenus, de nouvelles configurations épistémiques-didactiques, de nouveaux modèles de certitude, de nouvelles valeurs apparaissent. En l'absence d'un dialogue entre la langue, les arts d'expression, les sciences sociales et les sciences pures, il n'y aura pas de véritable intégration permettant le développement d'une culture nouvelle. Sur la base d'un programme commun tel qu'on le préconise en ce moment, il reste à articuler un programme culturel, c'est-à-dire:

- a) des lieux d'interrogation des gestes que l'on pose,
- b) une matrice pour la réalisation de projets scolaires et communautaires,
- c) des critères de réussite non seulement des produits mais surtout des processus qui déterminent les gestes et l'engagement de chacun.

La culture de l'école étant de préparer à la vie, ses activités doivent déborder les champs strictement

académiques et didactiques et se propager dans les loisirs, les jeux, le tourisme, les petites et moyennes entreprises, la politique, et les divers services sociaux. Certains exemples peuvent servir de modèles mais il s'agit d'une perspective pratiquement vierge quoique le nouveau programme d'étude commun semble apte à le développer.

E. La complexité et l'étendue du domaine culturel oblige à penser dans une **perspective intégrative** ou holistique. Le discours sur la culture est souvent terni par des positions **dualistes** qui forcent à prendre parti et à polariser les vues sur le monde. Une culture commune ne s'oppose pas à la tradition lettrée, ni la tradition orale à l'écrite, ni le pratique au théorique, ni l'intellectuel au manuel, ni encore le populaire au savant. Il y a toujours le danger dans les choix et la sélection que l'école effectue au sujet de la culture de négliger une dimension importante de la culture qui en assure sa vitalité. Trois perspectives non intégrées:

- a) Certains ont fondé le "programme" culturel de l'école sur un répertoire, celui de la tradition ou de concepteurs de programmes qui s'y substituent.
- b) D'autres s'inspirent du matériau symbolique, soit celui des volontés et des attentes du milieu. Ce matériau peut se mêler aux éléments du premier groupe.
- c) Enfin, d'autres partent de principes qui découlent, plus souvent qu'autrement, d'une analyse faite auprès d'un autre groupe culturel ou conçu en laboratoire.

Ainsi, se posent les questions suivantes aux tenants de ces positions fragmentées. Pour les premiers: "Le programme est-il complet?

Couvre-t-il ce qu'on doit leur enseigner? est-il adapté? à quoi reconnaît-on qu'il est intégré aux besoins de l'élève? Pour les seconds: "On leur donne ce qu'ils demandent mais cela ne semble pas suffisant, pourquoi? Si on leur donne ce qu'ils demandent on ne fait que reproduire leurs faiblesses? le milieu reproduit le milieu? Enfin, pour les tenants du troisième groupe: "Ceci a fonctionné ailleurs, pourquoi semblent-ils le rejeter? Nous avons construit un programme mais personne n'y participe? C'est curieux la qualité de leur langue continue à baisser? À partir de quelle année est-ce qu'on peut intégrer des personnes ne parlant pas français sans risque d'assimiler les autres?

Aucune de ces questions ne peut assurer un développement culturel épanouissant. Chacune des positions souffre d'une forme ou d'une autre de statisme. La première devient **passéiste**. La seconde, **contextualisée**. La troisième, **idéaliste** et **essentialiste**. Un programme culturel doit à la fois puiser dans le passé et construire des produits adaptés au présent et au futur. Il doit aussi partir du vécu des élèves mais les amener dans des sphères universalistes et décontextualisées. Il doit enfin se nourrir de principes nobles et dynamiques et générer des réflexions sur le passé et le futur. Il faut se prémunir contre l'illusion qu'un programme visant une culture commune permette à chacun de s'épanouir selon ses capacités. Il ne faut pas renoncer de faire progresser les plus doués selon leur force et leur motivation profonde. Il faut éviter d'imposer un programme à d'autres qui le rejettent ou s'y sentent mal à l'aise. La culture se passe dans l'intimité de la conscience. On ne peut pas l'imposer de l'extérieur. On ne peut que mettre en place les cadres, les programmes, les activités d'interaction et les exercices d'évaluation qui permettront qu'elle se manifeste. On pourra en constater objectivement la présence grâce au recul en regardant la civilisation qui en a découlé.

L'hétérogénéité, le dynamisme, la transdisciplinarité des dimensions culturelles devraient inviter à un programme d'aménagement linguistique et d'animation culturelle des plus universels. Il ne peut se résumer à un plan de contingence ou à des projets palliatifs ou encore à des mesures correctives. S'il est stratégique dans son mode de mise en oeuvre, il doit d'abord émaner d'une planification qui prend sa source dans une idéologie qui présente une vision de l'école qui alie à la fois l'originalité, l'authenticité, la spontanéité, l'individuation et le particulier d'une part, et l'excellence, l'universalisme, le pluralisme, la modernité, d'autre part.



Ainsi, l'école de langue française en Ontario ne peut avoir comme visée d'être franco-ontarienne. La culture franco-ontarienne (peu importe comment on la définit) est une donne de départ. Sa visée est de faire en sorte que les Franco-Ontariennes et les Franco-Ontariens puissent développer et maîtriser des schèmes de symbolisation intersubjectivement élaborés de façon à rejoindre le plein développement de leur raison et le plein accomplissement de leur esprit et génie particulier dans une forme communicable et propre au groupe en devenir. La visée culturelle de l'école française en Ontario est un credo dans la possibilité des Franco-Ontariens d'atteindre à l'universalisme grâce à leurs institutions sans crainte de sacrifier quelque part leurs particularismes. Bien au contraire, il est entendu que le premier (l'universalisme) ne sera atteint que lorsque le second (le particularisme) sera satisfait. Quand quelqu'un se dépense à protéger un particularisme, il faut comprendre qu'il n'a pas reçu les conditions lui permettant d'atteindre l'universalisme de la raison. Ce n'est pas qu'il n'en est pas capable. Ceux qui le lui reproche ne sont pas atteints par ses conditions de réalisation. Ils ne partagent pas la même culture. Ils doivent s'initier à un certain style de vie pour en apprécier les contraintes et les subtilités. L'école de langue française doit comprendre une formation pour l'intégration des diverses cultures de façon à ce qu'on respecte tant sa programmation, sa gestion, ses particularités que ses occupants. En tenant compte des interactions souhaitées en classe, des catégories mentales intégrées par les enseignants et du projet des savoir scolaires (que ce soit en termes d'objectifs ou de résultats escomptés) dont on se dote, il sera possible ainsi de définir les délimitations que l'on veut se donner. Il en résultera une solidarité organique, une complémentarité des individus, des valeurs communes, la résolution de problèmes authentiques et non simulés, une découverte autonome et un partage des responsabilités et du pouvoir plutôt que des opérations mécaniques et une compartimentalisation des disciplines.

Ce projet permet que se rejoignent la culture de l'école et la culture à l'école.

F. La culture est le lieu d'une pratique de soi et d'une pratique de la liberté. On ne peut parler de responsabiliser les apprenants sans évoquer le rapport entre soi et l'autre. L'autocritique, la reconceptualisation, les limites du relativisme sont au programme. Une éducation qui responsabilise en est une à la fois qui autorise et qui confie aux participants le droit de s'autodéterminer. L'institution "distribue des rôles et ainsi engendre le chacun"<sup>6</sup>. C'est ce qui détermine les capacités de chacun. C'est ce qui décide des dispositions de chacun. C'est ce qui définit l'énergie et la dynamique des individus et des groupes. Faire appel à une culture qui autorise, responsabilise, et crée des liens, parce que des responsabilités réelles ont été confiées, c'est reposer la question de la légitimité des Franco-Ontariens et Franco-Ontariennes dans leur province. Ils doivent faire la preuve tous les jours de leur volonté à utiliser leur langue sans quoi des services déjà parcellaires risquent de disparaître. Plutôt que de vivre sous la menace, plutôt que de vivre de services de seconde qualité, plutôt que de devoir s'affirmer, certains déclarent forfait. Ils indiquent, ce faisant, la limite de leur capacité. Sans rôle, leur identité s'est désagrégée. La place de la culture dans l'école remet en cause l'identité des participants dans la société. Dans une réflexion sur la place de la culture, il y a l'affirmation d'une liberté et la volonté de donner aux individus la pleine mesure de se réaliser. Le souhaiter à l'école et le renier dans la société environnante est malhonnête. Les jeunes le savent et ils feront des choix contraires au mieux-être de leur culture. Le défi est de taille parce que le passé n'a pas toujours été doux pour les Canadiens-français. Les moyens correctifs, palliatifs, et préventifs à mettre en oeuvre sont à mesurer à la lumière des effets négatifs pressentis par les jeunes. Le courage d'exister dans une culture donnée passe par un sain dosage entre deux formes de libéralisme: le droit de s'affirmer des individus dans leurs particularités et l'aspiration à l'universalisme, source de pensée rationnelle.

## **Plan des applications**

Nous allons revoir sans les développer les points essentiels où s'applique la culture à l'école. La culture à l'école soulève des interventions de type politique, socio-communautaire, administratif et



curriculaire<sup>7</sup>.

- Développer une politique scolaire à partir d'un statut officiel de la langue permet de mieux normaliser les usages. La pertinence d'une langue est mesurée à l'importance qu'on lui accorde. Une langue dotée d'un statut officiel s'impose autrement qu'une langue tolérée. Il en découle un mode de vie qui comprend des institutions, des services et des emplois. Même là où on a légiféré, il n'est pas sûr que la langue française occupe toute la place qu'elle devrait occuper. Les restrictions actuelles imposées au français parce qu'elle n'est pas officiellement reconnue en Ontario constitue une entrave au développement d'une culture scolaire. Les divers stigmas que l'on peut retracer dans l'histoire du français en Ontario marquent encore les esprits: crainte, insécurité, manque de confiance, difficulté d'affirmation, assimilation galopante, bilinguisme soustractif, analphabétisme, sous-scolarisation, etc. Les études sont claires sur ces sujets. Il incombe aux responsables de l'éducation peu importe leur origine de faire valoir ce que la recherche démontre en matière d'usage d'une langue et d'une culture en favorisant un processus visant à faire du français une langue officielle en Ontario. Une loi cadre sur l'éducation et la formation franco-ontarienne s'impose. Le Ministère de l'éducation et de la formation agit comme voie d'accès à l'établissement d'un réseau entier d'enseignement en langue française. C'est également sa responsabilité de développer des politiques interministérielles pour que l'éducation de langue française serve dans tous les secteurs de la vie des Franco-Ontariens et des Franco-Ontariennes.

- Développer par l'intermédiaire d'une Division de l'éducation de langue française un plan de gestion autonome et complet de l'éducation de langue française de la garderie à l'université, y compris dans la formation en cours d'emploi et dans la formation professionnelle qui soit géré par des francophones dans des institutions françaises.

- Développer des politiques d'admission cohérente avec le fonctionnement de la langue/culture. Sous cette rubrique, il faut trouver un moyen qui respecte les exigences de la socialisation par le langage. Quand on demande spontanément à quelqu'un s'il est difficile d'apprendre une langue sans contexte pour la pratiquer; s'il est difficile de maintenir une langue quand on ne la pratique pas; il répondra par l'affirmative. Pourtant, ces mêmes personnes sont prêtes à dire que les élèves de leur école apprennent le français du simple fait qu'on leur enseigne en français même si la langue générale de communication n'est pas le français. Elles ne verront pas la nécessité de regrouper les élèves par forces linguistiques, de donner un programme particulier à ceux qui ont des difficultés, etc. Chacun interprète les règles d'admission à sa façon. Chacun s'improvise linguiste. Et on assimile trop souvent l'absence de maîtrise de la langue d'enseignement à des difficultés d'apprentissage (un orthophoniste n'est pas un spécialiste des langues secondes). Une interview où on se contente de vérifier les acquisitions passives sur image, par exemple, ne saurait constituer un critère de compétence adéquat.<sup>8</sup>

- Développer des programmes d'accélération le plus tôt possible et avant la fin de la 2<sup>e</sup> année de scolarisation. De nombreux élèves ne peuvent poursuivre leurs études parce que leur langue est déficiente. Ils sont mis au compte des décrocheurs. D'autres, plus tard à l'université, se voient fermer des portes parce que leur langue n'est pas adéquate. Quand on prend en considération l'écart entre les francophones et les autres groupes dans l'accès scolaire et la poursuite des études, on comprend la place qu'y joue la langue. On ne pourra pas réduire ces écarts effarants sans s'occuper des conditions de réalisation dans lesquelles se trouvent la langue et la culture.<sup>9</sup> Le dernier mot n'est pas dit sur la façon la plus rentable de gérer un projet d'A.L.F. et de P.D.F. mais tous conviennent de la pertinence d'en faire l'essai. Il s'agira d'une expérience qu'il faudra planifier avec soin et qui demandera une formation adéquate. Sans la présence d'enseignantes et d'enseignants formés en profondeur sur les réalités linguistiques, sociolinguistique et culturelles, il y a fort peu de chance que ces programmes connaissent les succès escomptés. La connaissance de l'hétérogénéité linguistique des apprenants et des réalités interculturelles ne font pas partie du programme de formation actuel.

- Créer un milieu où l'acquisition et l'usage de la langue seconde n'interfèrent pas avec la langue

d'usage de l'école et la langue principale d'apprentissage. La gestion de la langue publique relève des institutions et non des individus investis d'un rôle particulier. Il faut donc une Régie de la langue française au sein de l'appareil public dont la fonction est de faciliter l'usage de la langue orale et écrite, la portée sociologique de celles-ci, et les moyens pour y arriver<sup>10</sup>. Sans ce mode de fonctionnement, la limite des usages et de leurs qualités relèvent des individus. Dans un contexte minoritaire, ces individus sont aux prises avec l'invasion de la langue dominante. Un rétrécissement obligé de l'espace culturel se produit invariablement: de l'actualisation linguistique on passe à l'assimilation linguistique. On retrouve certains aspects de ce service dans le vol. 1 du document du M.É.F. cité précédemment mais il faudrait partir de plus haut dans la politique. Un Bureau doit être investi de pouvoir pour faciliter le changement prévu. L'école doit être pourvue de programmes de francisation des parents. L'école et le milieu doivent faire un quand le développement de services communs ou conjugués est possible. Le centre scolaire communautaire constitue une réponse éprouvée dans ce domaine.

- Le droit d'accès à l'école de langue française s'accompagne d'un code de responsabilités volontairement consenties. L'ancienneté (des ayants droit) est un droit d'accès et non un code d'usage. Certains mêlent leur droits d'accès et les règles d'usage à l'intérieur du système. L'unilinguisme de ces intervenants ne doit pas devenir le définisseur des règles d'échanges et de performances linguistiques dans l'école. La raison pour laquelle ils se prévalent d'un droit c'est justement pour modifier leur statut linguistique, sinon chez eux, du moins chez leurs enfants.

- La pédagogie du français doit refléter tant dans sa conception que dans son mode de livraison les caractéristiques des élèves, les fondements d'une langue, et la modernité des produits culturels susceptibles de motiver les apprenants. C'est le domaine le plus connu de la problématique. Les assises sont saines. C'est le domaine où on compte le plus de documents de première génération. On compte même des documents d'appui et des produits comme la BIMO qui enclenche le changement désiré. La formation fait défaut. Le COFPE en a été saisi mais la résistance est forte au sein des universités. Dès le début du B.A., les futurs enseignants doivent être encadrés sans pour autant nuire à leur formation générale. Le programme de formation initiale doit être modifié: la place que la langue y occupe n'est pas suffisante compte tenu de la complexité des contenus à partager. Les appuis pédagogiques dans les Bureaux régionaux en matière de langue doivent s'intensifier. La formation de futurs formateurs dans ces domaines urge. Des plans de développement spéciaux dans les M.A. et Ph.D. s'imposent. Nous joignons en annexe une représentation des rapports entre culture, pensée et langue<sup>11</sup>. L'atteinte de la qualité dans chacun des secteurs mentionnés suppose la mise en oeuvre d'un plan de développement qui respecte toutes ces dimensions. Les liens qui unissent la langue et la pensée sont intimement tissés. L'atteinte d'habiletés élevées de la pensée suppose l'atteinte d'une maîtrise élevée de la langue. Les liens entre langue et culture sont également étroits. La pleine réalisation des dimensions discursives et pragmatiques de la langue ne peuvent se faire sans l'atteinte de projets culturels richement définis.

- L'animation culturelle relève à la fois de spécialistes dans le domaine et de tous les intervenants. La culture n'est pas un objet de consommation et les responsables de l'animation culturelle ne sont pas des agents de vente de spectacles. Leur action part d'une vision, d'où le besoin d'une formation adéquate dans ce secteur. Une vision éclairée de l'animation culturelle reconnaît interdépendance synergique des divers intervenants et palliers scolaires. Compte tenu des affirmations reconnues dans la première section du rapport, l'animation culturelle:

- respecte les règles de l'interactivité;
- reconnaît l'importance de l'autonomie des individus en tant que fondement à une pratique de soi ou à une spiritualité saine;
- approfondit le pouvoir d'interprétation des individus, seule façon d'assurer une identité sereine;
- se fonde sur une vision holistique donnant autant d'importance à la culture des métiers, de l'artisanat, des médias de masse, des sciences et techniques qu'à l'art et la littérature.
- implique tous les intervenants peu importe son secteur d'activité.



On retrouve des éléments essentiels dans le document d'appui du M.É.F.<sup>12</sup> L'équivalent d'un programme d'études s'impose pour que ce plan se réalise. L'appui de conseillers dans les régions peut assurer la réalisation de ce projet capital dans la refonte. Les objectifs du document risquent d'être sans effet sans la mise en oeuvre d'un plan de formation, de développement des activités et le support d'un personnel qualifié. Les propos tenus dans ce document sous la rubrique de l'évaluation devrait être repris à la lumière des données de la BIMO-français où on y retrouvera des pistes pour une évaluation formative interactive, des modèles d'évaluation appréciative et de réinvestissement, des items se rapportant aux valeurs et à la culture.

- La prise en charge des aspects communautaires apparaît dans les nombreuses études se rapportant aux caractéristiques de l'élève et du milieu. On la retrouve aussi partiellement au sein du programme dans les manuels où un effort se fait pour y intégrer les aspects de la vie en Ontario. Certains milieux plus que d'autres tentent des efforts remarquables pour rapprocher l'école du milieu. Mais on ne peut pas parler d'une véritable culture des rapports entre l'école et sa communauté. C'est le domaine par excellence où on doit donner une priorité durant la prochaine décennie. La création de grands conseils scolaires a fait en sorte que les parents se sont désinvestis d'un rôle et d'une présence à l'école. La spécialisation et la complexification de l'appareil ont rebuté plus d'un parent. Le bénévolat associé à l'école ainsi que les services payants connexes ne semblent pas émaner d'un énoncé de mission clair. Beaucoup de projets se rapportant à la culture doivent se fonder sur des liens étroits avec la communauté. La francisation n'est pas possible sans cet apport<sup>13</sup>. L'animation culturelle devrait tenir compte des infrastructures du milieu: centre de la culture, théâtre, radio et télévision communautaires, réseau des entrepreneurs francophones, placement coopératif en milieu de travail, etc.<sup>14</sup>. Là où la communauté est moins nantie que l'on développe un centre scolaire communautaire. L'économie est le moteur de la cohésion communautaire. L'école doit voir partout à développer une coopération entre les personnes qu'elle forme et le milieu. Un comité de planification stratégique comprenant des personnes du monde des affaires, des organismes associatifs, et de l'école pourrait trouver de nouveaux débouchés pour les jeunes tout en créant des liens pendant la formation. De nouveaux modes d'échanges naissent de nouvelles énergies.

Bien que ce domaine arrive en dernier lieu dans cet écrit, il faut comprendre qu'il en est la pierre angulaire. S'il n'est pas question de sacrifier l'universalisme décontextualisé de l'école traditionnelle, il faut savoir reconnaître dans la conception moderne de l'école fondée sur la pertinence, l'authenticité, le fonctionnalisme et le réalisme, entre autres, une façon d'atteindre des valeurs plus universelles. Une appartenance fondée sur la différenciation seule est sclérosante. Par contre, une appartenance fondée sur la valorisation du réalisme intra-sociétal peut donner un sens d'appartenance, une fierté, et un goût d'actualisation. Au contraire, l'absence de ces assises développe une mentalité de personnes en manque, éloignées de l'action, en dépendance par rapport à d'autres centres de décision. Beaucoup de nos communautés francophones éloignées souffrent de cette mentalité. La perception étant que la culture est fondée sur une "substance" et que cette substance leur échappant, il en résulte le sentiment qu'ils ne peuvent rien faire. Fondée sur la possession, la culture laisse les dépossédés dans un état d'infériorité. Au contraire, une perception fondée sur l'action dé-réfie la substance externe à soi et enclenche un processus d'appropriation et de responsabilisation. Ce changement de mentalité demande plusieurs renversements par rapport aux pratiques existantes. Il importe de revoir les opérations mises en oeuvre. Il faut d'abord un accès à la connaissance des dynamiques ci-dessus présentées. Les modèles féministes de formation des personnes éloignées du marché du travail sont à considérer. Il faut aussi un mode d'appropriation qui permette de corriger le sentiment d'infériorisation parce que c'est de cela dont il s'agit. L'ancrage réaliste, fonctionnaliste, situationniste n'est pas une fin en soi mais une façon d'atteindre une décontextualisation du savoir et un plus grand universalisme culturel. On ne peut faire l'économie de cette étape sans aliéner plus profondément les membres d'une communauté qui porte un lourd fardeau d'infériorisation.



Pour s'en sortir:

Il importe de souligner que la plupart des concepts évoqués dans cet essai sont inconnus des étudiants-maîtres à la fin de leur formation. Durant les quatorze années de formation, on n'a pas prévu de cours où ces réflexions seraient développées. Aucun centre de recherche existant ne met l'accent sur cette faille. La formation que certains se sont donnée relève de leurs intérêts personnels et elle s'est faite souvent à l'extérieur de l'Ontario. On peut même dire que cette matière est à peine effleurée dans certains programmes de maîtrise en éducation. La transmission et l'interaction culturelle à l'école sont de grands inconnus. La Commission a tenu à lui réserver une place parmi ses délibérations. Les spécialistes reconnaissent qu'il s'agit à la fois du domaine le plus important et le moins développé. Pourtant c'est ce qui rend légitime la chose enseignée et les gestes que des milliers d'enseignants portent chaque jour auprès d'êtres en changement.

Créer une culture scolaire qui responsabilise les élèves et les enseignants demande-t-on? C'est d'abord prendre conscience de l'incommensurable écart qui sépare la connaissance des faits et les besoins à combler. C'est tenir compte d'un ensemble complexe où on ne s'improvise pas spécialiste. C'est croire dans un changement des mentalités en profondeur pour qu'on ne sème pas des réformatrices surannées.

Créer une culture scolaire qui tissent des liens entre l'école, la famille et la communauté demande-t-on? C'est reconnaître le patrimoine de la recherche des sociolinguistes et des ethnométhodologues depuis près de vingt ans. C'est ce qu'ils ont réclamé suite à leurs enquêtes. Il s'agit d'abord d'une question de vision et de volonté politique. La réalisation de cette volonté met à contribution plusieurs secteurs externes à l'éducation. Elle touche d'abord la place du français dans la province. C'est aussi la possibilité de muer l'activité scolaire en événement. La communauté vit d'événements sportifs, sociaux, religieux, coopératifs, artistiques, médiatiques et commerciaux. Les membres sont-ils des consommateurs ou des producteurs de l'événement? Selon le cas, se dessinent le profil de leur force culturelle.

L'esprit qui inspire le coopératisme, la formation en leadership, l'échange de services, la complémentarité des fonctions doit prévaloir pour que l'école, la famille et la communauté se rejoignent. Une communauté, c'est un tissu. Il faut éviter d'en faire une masse monolithique, homogène et impénétrable. La diversité et la complémentarité des structures, des points de vues, des allégeances se retrouvent probablement en plus grande force dans la région de Sudbury. Un projet pilote visant à surpasser l'état que cette région atteint serait très rentable pour la communauté franco-ontarienne. Sur la base de leurs acquis et de l'énergie qui émane de chacun des secteurs, comment passer à une phase d'autonomie régionale où la culture de l'école serait de prévoir de nouveaux projets pour donner racines aux jeunes, créer des débouchés nouveaux, et serrer les liens entre divers paliers d'activités socio-communautaires? La province pourrait faire de cette région un projet pilote d'une exceptionnelle richesse en passant par un projet scolaire où la culture de l'école serait le moteur du changement.

## Endnotes

- <sup>1</sup> Forquin, Jean-Claude, *École et culture*. Coll., Pédagogies et développement, De Boeck-Wesmael, Bruxelles, 1989, 247 p.
- <sup>2</sup> Cazabon, Benoît, Sylvie Lafortune et Julie Boissoneault, *La pédagogie du français langue maternelle et l'hétérogénéité linguistique*, Ministère de l'Éducation et de la Formation, Toronto, 2 volumes, 1993
- <sup>3</sup> de Certeau, Michel et Luce Giard, "La culture comme on la pratique", dans *Le français dans le monde*, Hachette/Larousse, no 181, nov.déc. 1983, pp.19-24.
- <sup>4</sup> De Certeau et Giard, op.cit. p.21
- <sup>5</sup> Forquin, J.Cl., op.cit. p.12
- <sup>6</sup> Ricoeur, Paul, "Itinéraires" dans À quoi pensent les philosophes *Autrement*, No 102 1988, p.183
- <sup>7</sup> Nous avons eu l'occasion d'en résumer plusieurs facteurs dans Cazabon et alii., cité plus haut.
- <sup>8</sup> La plupart des bonnes questions qu'il faut se poser à ce sujet se retrouvent dans *Pour les écoles de langue française en Ontario, vol.1, M.É.F. Toronto, avril 1993*.
- <sup>9</sup> Tel qu'il se présente dans sa version actuelle, à notre avis, le volume 2 de *Pour les écoles de langue française en Ontario* recommande des actions qui sont en deçà des besoins en actualisation linguistique et en perfectionnement du français. En quoi diffèrent-elles des attentes en immersion?
- <sup>10</sup> Nous avons tenu un colloque en faveur de la création d'un Office de la langue française en 1982 où nous réclamions ces services linguistiques en Ontario.
- <sup>11</sup> Ce schéma représente les rapports intimes entre langue, pensée et culture. C'est pure illusion de croire que l'on peut atteindre les niveaux élevés en langue et pensée sans la présence d'une culture forte. La lecture intelligente d'un texte culturel d'une quelconque richesse va de pair avec une habileté de pensée élevée. Toute l'éducation est fondée sur la prémisse qu'elle est réussie si elle atteint les diverses habiletés de pensée.
- <sup>12</sup> M.É.F., *Investir dans l'animation culturelle*, février 1992, 67p.
- <sup>13</sup> Cazabon, Benoît et Alain Cossette, *Modèles de francisation. Étude de cas portant sur différentes expériences de francisation*, Commission nationale des parents francophones, Saint-Boniface, mai 1991, 66 pages
- <sup>14</sup> Boissoneault, Julie, Jacques Michaud et Denis Haché. *La scène scolaire en Ontario français: la question de l'animation culturelle*, document interne, IÉPO, CRÉNO, Sudbury, juin 1993, 37 pages + 17 figures +9 pages de bibliographie + questionnaire.

## École et culture

### Summary:

A Culture is to be gauged, not according to the number of products owned but by a number of operations. The mere presence of schools does not guarantee the presence of a culture. Culture depends on the legitimacy of the actions and the curriculum. Oral activities are good indicators of the capabilities of the participants to own the curriculum, assimilate its content and create new products of a cultural value and specificity.

Three issues that may interfere with cultural well-being:

- a) What linguistic quality can be attained by students facing linguistic limitations? Language deficiency limits participation in that culture. Curriculum content which is beyond one's capability is superimposed and not assimilated.
- b) One who has difficulties to explicate the content of his/her learning in his/her own words is limited in his learning and in his participation in the school's culture. Too often, cultural value is attributed to mere reproductions or recall exercises.
- c) One who is gifted and can express in his/her own terms a variety of meta-cognitive and meta-linguistic concepts will be given the opportunities to do so to what extent? It is the quality of the cultural environment that determines the quality of his/her self-development. Anything short of these capabilities will jeopardize his/her progress.

B School culture is the capacity to recognize, beyond the daily products, the different processes that are based on actions, principles and links with History. Critical analysis of this very complex domain should use sophisticated methods as developed in ethnomethodology, hermeneutics, social psychology and semiotics, among a few, to attain a higher understanding of cultural impact on school activities. An in-depth analysis of the most important dimensions of school culture has yet to be done.

C Culture is based on memory and will. Memory occurs when certain actions are done normally and wilfully in given institutions within a collectivity of same, with the intention of producing events of a cultural nature. Discourse intended to promote social identity (generally ethnocentric) results from a lack of power over one's cultural actions and destiny. The need for identity and a sense of belonging is not to be confounded with the need for a strong cultural milieu. It is the quality of the milieu that determines the quality of well-being, the sense of identity, and the sense of belonging. Any form of reduction in the quality of the milieu has its load of repercussions on the framing of culture, identity and well-being. This explains among minority groups the higher rate of school drop-out, lack of incentive, and an increased sense of being depossessed and disabled.

D Culture is the content of education. Culture analysis is based on the theories of action.

- 1 Pragmatics which links communicative intentions and actions;
- 2 Axiology which studies values. Therefore, a cultural program should provide:
  - ways for questioning the actions we do as collectivities.
  - a matrix to incubate school and community projects.
  - criteria to evaluate the success of different processes and products.

E The complexity and the span of the cultural domain requires a wholistic approach. Three exclusive and partial views must be avoided.



- a “passéiste” approach based solely on a repertoire and a tradition;
- a contextualized approach which is based solely on events locally situated ;
- an idealistic and essentialist approach based on principles imported from another culture but irrelevant to a particular group.

A wholistic approach has resolved many dualistic simplifications (the “we” vs “them”) which are a plague in the area of culture. Instead, it has created a program which includes in the past but leads to products adapted to the present and the future worlds. It is based on the pupils’ daily life but it leads them to universalist and decontextualized questionings. It is based on honourable and dynamic principles but also, it generates reflexions about the past and the future. We must be careful not to impose a common curriculum that will reduce the chances of individuals in attaining their full potential. Those capable and highly motivated must be given a rich milieu to attain their full potential. Furthermore, it is useless and probably damaging to impose on those who reject it, a program which is not tailored to their needs and capabilities.

Linguistic planning and cultural animation must be based on a vision of school which combines originality, authenticity, spontaneity, individuation, particularities and also, excellence, universalism, pluralism and modernity.

F Culture is a way of developing the self and making attempts to attain freedom. We cannot address the question of empowering the learner without a reflexion on the relationships with one’s self and with others. Empowering means the right to self-determination and the responsibilities that accompany such a role. Each one’s capabilities are determined by the roles given within the institutions. Each person’s dispositions towards others, as well as his/her dynamism and energy are determined by his/her ability to intergrate the notion of empowerment. To claim a culture which authorizes, empowers, and creates links is a way of requestionning the legitimacy of the Franco-Ontarians in Ontario. Requestionning the place of culture in the school raises the question of their identity and capacity to participate in the larger society.

### **Some recommendations**

- 1 Develop school policies that emerge from a strong official linguistic status ensures normalized uses. Uses cannot be changed until the status of French in Ontario is modified. Research in that area is clear. The use of French in the working place will motivate the students and enhance the relevancy of the learnings as well as the uses of the language in other areas.
- 2 Develop through the *Division de l’éducation de langue française* a complete management plan of French education from pre-school to university to be administered by the francophones in French speaking institutions.
- 3 Develop coherent admission policies in line with the latest theories on language functioning and supported by implementation programs congruent with the needs.
- 4 Develop acceleration programs and enrichment programs at an early stage. Later interventions hinder school participation, content appropriation, and development of self-image. During adolescence, the stigmas of assimilation have become traits of socialization. They are part of identity. In other words, linguistic and cultural identities are permanently affected.
- 5 Create a school milieu such that second language acquisition and use do not interfere with the learning and use of the school’s first language. This means the planning and implementating of linguistic measures shared by the parents, the students, and the staff. It also means establishing a

*Programme d'animation culturelle* which comprises some reflections on language use, identities, and cultural sharing.

6 Develop a code of responsibilities that accompanies the right to French school education. To give parents means to attain those objectives.

7 French teaching, in its conception as well as as in the didactics used, should reflect sound language foundation theories; it should use the characteristics of the students; and it should promote cultural products that are modern and appealing to the learners. Teachers' training programs must be revised. They should include courses of a cultural content (Franco-Ontarian community analysis as well as study on culture as a domain across the civilizations). School support must be provided through the Ministry's Regional Offices. A special effort must be given to preparing a new generation of trainers in the area of French as a first language, in cultural appropriation, and in linguistic analysis of language standards.

8 The relationship between school and community is a culture in itself. Recent changes in Board management could become part of a new empowering device. School projects must involve parents, community centres, and institutions of different kinds. In some areas, the school-community centre could be the answer. Elsewhere, the complexity of the existing network could suggest a more flexible partnership. Many schools could develop projects with the community which are related to the families' welfare, environmental issues, new technologies, cooperative services, job opportunities, etc. Relevance, authenticity, functionality, and realistic goals should ground the projects in the very roots of the community's fundamental values. It is only in doing so that we may attain values more universal in nature and decontextualized in their form.

## Conclusion

It is important to note that most of the concepts referred to in this summary are unknown to the teachers in the training programs in Ontario. To a certain extent, as we discovered in our most recent study, neither are they understood by many practising teachers. At least three courses at the B.A. level should be given as part of a cultural program for all future incumbants.

To aim at a school culture which is empowering rather than disabling for students and teachers alike in French schools is:

- a recognition that the gap between the existing facts and the necessary changes to correct the situation is tremendous.
- acting upon a complex and dynamic issue. Schools' life as well as French community are at stake.
- a way of implementing a vitalizing means rather than passive view of culture.

To create a school that links school, parents and community is:

- a recognition of the many studies sponsored by the Province in this area. To implement that which has been recommended by various studies during the past 20 years would in itself be a worthwhile accomplishment.
- a recognition of the French community's vision about itself. It is addressing francophone views about school management.

-based on a philosophy that inspired cooperative movements, leadership training, interactive process, complementarity of functions, all of which have been part of the French culture in Ontario. A minority group, by necessity, understands the power of cooperation, interactivity, and internal leadership. It becomes a matter of survival or assimilation. Survival is a trait of minorities. It is maintained through resistance. It is not productive in the long run. Franco-Ontarians need the means to become more autonomous. Only then can they be part of the larger society.

Finally, we suggest that the region of Sudbury be used as a pilot area where school based cultural projects could be fostered with the view of establishing closer links with the parents and the community. This would give the region a cultural as well as an economic boost. In my view the potential is great because Sudbury constitutes a microcosmic unit:

- 1 the geographic and demographic perspectives are ideal,
- 2 the infra-structures, the vitality and number of institutions are sufficient to make a self-contained cultural basin, and
- 3 it is already a very productive community.





# **Rapport de Recherche**

**Donald Dennie et Simon Laflamme**

Janvier 1994





***Rapport de Recherche, Janvier 1994.***

This report is a summary of two previous reports (1990), *Vision d'avenir* and *L'ambition démesurée*. These reports examined implications for policy development for French-language schools in the North, and in particular, made recommendations concerning: (1) the challenges that must be faced in the French-language school system in the North, and (2) the measures that must be adopted to assure that the Francophone population in Northern Ontario have access to good educational programs delivered at a reasonable cost.

In the first report, *Vision d'avenir*, the authors examined the factors that contributed to the process of assimilation of the Franco-Ontarian population, especially those aged 15 to 24, and those that seemed to impede the healthy growth of French culture outside Quebec. They also realistically looked at Acadian and other Francophone communities outside Quebec, particularly at data relevant to the youth of these communities. The report concluded that the assimilative process of young Francophone Canadians threatened the Francophone community outside Quebec, and they recommended a network of homogeneous educational institutions with a Francophone administration of these institutions. The second report, *L'ambition démesurée*, described the results of a poll of 1500 students in North Eastern Ontario from primary, secondary and post-secondary institutions. The poll looked at their educational aspirations and at their cultural perceptions. The overall conclusion was that level of education and increasing age tended to reinforce Francophone identity.

Based on these two reports the authors offer seven recommendations: (1) that French-language schools aspire to a goal of responsibility for each student - that each student has the kind of learning s/he needs and that the student is a partner in this, not solely responsible for her/his learning; (2) that broad academic and other standards be put in place for purposes of promotion; (3) that the number of levels of classes (basic, general, etc.) be reduced but students who need help should be offered special classes; (4) an emphasis on communication skills and on the role of French in the world; (5) that there be an emphasis placed from Grades 8 to 11 on the importance of education in the post-modern world; (6) that courses be developed to demonstrate to Franco-Ontarian students that English is not the only important language in the world, and that French and Franco-Ontarian culture has its place; and (7) that post-secondary courses be offered entirely in French in institutions in the North.

\* \* \* \* \*

Ce rapport résume deux travaux publiés en 1990, *Vision d'avenir* et *L'ambition démesurée*. Ces rapports étudiaient diverses questions liées au développement des écoles de langue française dans le Nord, et présentaient notamment des recommandations par rapport aux questions suivantes : (1) quels sont les défis que doit affronter le système d'éducation franco-ontarien, dans le Nord en particulier; (2) quelles mesures doivent être prises pour assurer que les populations de langue française du nord de l'Ontario aient accès à des programmes éducationnels de qualité livrés de façon économique.

Le premier rapport, *Vision d'avenir*, examinait les facteurs qui contribuent à la tendance assimilatrice qui frappe la population franco-ontarienne, particulièrement les jeunes de 15 à 24 ans et analysait les symptômes qui font obstacle au plein épanouissement des communautés de culture française hors Québec. Ce rapport brossait le tableau le plus réaliste possible de la situation des communautés acadiennes et francophones vivant à l'extérieur du Québec, notamment les données pertinentes à la situation des jeunes. Les auteurs concluaient que le processus d'assimilation des jeunes Canadiennes et Canadiens francophones menaçait la communauté francophone hors Québec,

et recommandait la création d'un réseau homogène d'établissements d'enseignement sous administration francophone. Le second rapport, *L'ambition démesurée*, était le résultat d'un sondage effectué auprès de 1 500 étudiantes et étudiants du nord-est de l'Ontario, de niveau primaire, secondaire et postsecondaire, qui ont répondu à un questionnaire qui cherchait à étudier leurs aspirations scolaires ainsi que leurs représentations culturelles. L'étude concluait que la francité tend à augmenter avec le niveau d'éducation et avec l'âge.

Sur la base de ces deux rapports, les auteurs proposent sept recommandations : (1) que les écoles de langue française aspirent à la responsabilité envers chaque élève, c'est-à-dire que chaque élève bénéficie des apprentissages dont il a besoin et soit partenaire dans son apprentissage et non la seule responsable ou le seul responsable; (2) que des critères scolaires et autres soient établis à grande échelle aux fins de promotion; (3) que le nombre de programmes (fondamental, général, etc.) soit réduit, que soient mises sur pied des classes dont les fins seront de préparer les élèves qui éprouveront quelque difficulté à évoluer dans les programmes retenus; (4) que, dans l'enseignement, on insiste aussi bien sur les aptitudes de communication que sur le rôle du français dans le monde; (5) que des campagnes de sensibilisation informent les jeunes, dès la 8<sup>e</sup> année et jusqu'à la 11<sup>e</sup> année, du rôle de l'éducation dans les sociétés postmodernes; (6) que des cours aient pour objectif d'instruire les Franco-Ontariennes et les Franco-Ontariens du caractère pluriel du monde (c'est-à-dire non exclusivement anglophone), de la place du français dans le monde et de la culture franco-ontarienne; (7) que les programmes postsecondaires partiellement offerts en français le soient intégralement dans les institutions postsecondaires du Nord.

## RAPPORT DE RECHERCHE

Ce rapport préparé par Donald Dennie et Simon Laflamme, professeurs au département de sociologie et d'anthropologie de l'Université Laurentienne pour le compte de la commission royale d'enquête sur l'éducation en Ontario, a pour objectif de :

- 1) résumer deux travaux publiés en 1990, **Vision d'avenir** et **L'ambition démesurée**;
- 2) en dégager les éléments importants pour les niveaux primaire et secondaire du système d'éducation en Ontario;
- 3) émettre quelques recommandations par rapport aux questions suivantes :
  - quels sont les défis que doit affronter le système d'éducation franco-ontarien en général et dans le Nord en particulier?
  - quelles mesures doivent être prises pour assurer que les populations de langue française du Nord de l'Ontario aient accès à des programmes éducationnels de qualité livrés de façon économique?

Ce rapport contient donc un résumé des deux travaux pré-cités, une série de recommandations ainsi qu'une annexe comprenant une bibliographie sélective de certains articles pertinents sur l'éducation en langue française en Ontario. Cette bibliographie sélective contient des titres qui soulèvent certains défis que doit affronter le système d'éducation franco-ontarien dont la présence des élèves anglophones dans le système, le niveau de la langue parlée et enseignée par les enseignants à des étudiants francophones issus d'un milieu bilingue, le problème de l'analphabétisation en Ontario français, le problème de l'immersion, la francophonie multiculturelle.

### **Vision d'avenir**

Le projet intitulé **Vision d'avenir** a été effectué par la Fédération des jeunes Canadiens français et avait au départ le but de chercher des solutions pour enrayer le processus d'assimilation des jeunes. Compte tenu de l'ampleur des transferts linguistiques et de l'assimilation, une telle recherche sur les moyens de stopper le processus s'est vite avérée insuffisante et le projet a plutôt visé à élaborer des stratégies de revitalisation des communautés, de refrancisation et de reculturation des francophones.

Les objectifs plus précis étaient donc :

1. Proposer des mesures précises pour contrer et renverser la tendance assimilatrice qui décime les rangs des communautés francophones hors Québec, particulièrement chez les jeunes de 15 à 24 ans;
2. analyser les symptômes qui font obstacle au plein épanouissement des communautés de langue française hors Québec et en déterminer les causes fondamentales;
3. brosser le tableau le plus réaliste possible de la situation des communautés acadiennes et francophones vivant à l'extérieur du Québec;
4. dégager les données pertinentes à la situation des jeunes;
5. identifier les éléments essentiels pour assurer le plein épanouissement des communautés acadiennes et francophones et celui des jeunes en particulier.



Pour atteindre ces objectifs, le projet comprenait deux volets :

1. une recherche dirigée par le professeur Roger Bernard de l'Université d'Ottawa et un comité de recherche;
2. une commission qui a visité les principaux centres francophones et acadiens pour y tenir des audiences publiques et accueillir des recommandations.

De ce projet sont issus quatre volumes, les trois premiers (**Le déclin d'une culture, Le choc des nombres, Un avenir incertain**), le fruit de la recherche, et le quatrième (**L'avenir devant nous**) le résultat des travaux de la commission.

Le premier volume, *Le déclin d'une culture, Recherche, analyse et bibliographie, Francophonie hors Québec 1980 - 1989*, résume les grands courants de la recherche sur la francophonie hors Québec après la commission royale d'enquête sur le bilinguisme et le biculturalisme mais surtout au cours des années 1980. Ces études ont porté principalement sur les domaines suivants : les facteurs démographiques et sociolinguistiques, les dimensions démographiques, les éléments de construction d'une identité culturelle, la dimension économique et surtout le retard socio-économique et la sous-scolarisation des francophones, les politiques de survivance et de développement communautaire, les luttes pour l'obtention d'écoles à tous les niveaux. En somme les recherches ont porté principalement sur les facteurs qui, d'un côté, menacent les communautés francophones et, de l'autre, favorisent leur développement et leur épanouissement.

La deuxième partie de ce premier volume analyse les principales théories sociologiques reliées à l'étude des communautés canadiennes-françaises et de leur développement. La conclusion comprend une série de principes liés à un projet de communauté canadienne-française ainsi qu'une bibliographie sommaire sur les francophones hors Québec de 1980 à 1989.

Le deuxième volume, **Le choc des nombres**, est un dossier statistique qui "regroupe surtout des données tirées des recensements du Canada depuis 1951" (p. 7). Cette analyse des recensements démontre essentiellement que l'assimilation des jeunes dépend fortement du niveau de concentration des francophones, ce que de nombreuses autres études ont démontré depuis plus de vingt ans. En somme, la conclusion de ce deuxième volume est la suivante; plus est faible la concentration de francophones, plus est élevé le niveau d'assimilation des jeunes. Et l'inverse est aussi vrai : plus est forte la concentration de francophones dans un milieu donné, moins est élevé le niveau d'assimilation. Pour mesurer ce niveau d'assimilation, l'équipe de recherche a introduit ce qu'elle appelle un "indice de contact régional", c'est-à-dire le poids démographique des francophones (langue maternelle) dans la division de recensement.

Le niveau d'assimilation est aussi influencé par le taux d'exogamie ou d'endogamie des francophones; et ce taux est en fin de compte le résultat de l'indice de contact régional.

Le troisième volume, **Un avenir incertain. Comportements linguistiques et conscience culturelle des jeunes Canadiens français**, résume et analyse les résultats d'un sondage non probabiliste auprès de 4 000 jeunes Canadiens français à travers le pays (sauf au Québec). Puisqu'il était impossible d'obtenir une liste représentative et exhaustive de la population des jeunes Canadiens français afin d'en tirer un échantillon probabiliste, l'équipe de recherche a construit un échantillon stratifié lequel représente le pourcentage des jeunes Canadiens français dans chacune des provinces. Pour atteindre ces jeunes, l'équipe de recherche a distribué son questionnaire dans les institutions scolaires. L'équipe reconnaît que cette façon de faire avait pour effet d'introduire des biais dans ses résultats mais compte tenu des limites de fonds et de temps, il s'agissait de la méthode la plus efficace.

Ce sondage confirme l'analyse des statistiques des recensements contenus dans le volume II : l'utilisation du français et la conscience culturelle des jeunes Canadiens français dépendent de la concentration des francophones. Dans l'ensemble, ce rapport conclut :

Les données de l'enquête auprès des jeunes démontrent, sans l'ombre d'un doute, un rétrécissement des expériences langagières en français dans les milieux minoritaires, rétrécissement qui dévoile des phénomènes de bilinguisation et d'anglicisation des comportements linguistiques. Ces changements sociolinguistiques risquent de reléguer le français au statut de langue seconde, objet du patrimoine (p. 235).

L'étude conclut que l'utilisation du français ainsi que la conscience culturelle ne sont pas une simple question de préférence; elles relèvent d'un ensemble de facteurs du contexte global qui entoure l'échange. En milieux minoritaires, les comportements linguistiques glissent vers une bilinguisation, et plus le milieu est minoritaire, moins les jeunes résistent à l'assimilation; en outre, en vieillissant, les enfants utilisent de plus en plus l'anglais avec les parents et avec les frères et soeurs.

Il va sans dire que ces deux derniers volumes ont déclenché un certain débat au sein des communautés francophones. Si l'équipe de recherche a conclu que ses résultats peignaient une image réaliste de la situation linguistique et culturelle des jeunes Canadiens français, plusieurs lui ont reproché d'avoir peint un portrait pessimiste de la situation. En effet, dit-on, la recherche aurait dû aussi conclure que si, d'un côté, il y a bien assimilation, de l'autre, il y a aussi survivance des jeunes Canadiens français.

Le dernier volume, **L'avenir devant nous. La jeunesse, le problème de l'assimilation et le développement des communautés canadiennes-françaises**, constitue le fruit des travaux de la commission. Les membres de cette commission reconnaissent certes que le portrait statistique des jeunes canadiens français n'est guère encourageant. Toutefois, les centaines de mémoires que la commission a reçues ainsi que les nombreuses audiences publiques qu'elle a tenues lui ont fait voir des efforts "héroïques" entrepris dans de nombreuses communautés pour contrer les ravages de l'assimilation. Ces efforts sont suffisamment nombreux, lit-on dans la conclusion, pour croire qu'il existe encore un espoir. Ces efforts et les chances de développement et d'épanouissement des communautés canadiennes françaises varient certes selon les provinces. Pour assurer ce développement, "il faut créer des lieux où la vie française est possible" (p. 143). Plus précisément, la commission conclut :

À l'encontre de ce qu'on a souvent pensé, la commission ne croit pas que l'assimilation soit d'abord une question linguistique. Il s'agit en fait d'une question de culture. Ceux qui affirment vouloir maintenir une langue doivent aussi soutenir la culture qui la rend utile. Or, sans des assises institutionnelles, une culture ne peut se développer et, par conséquent, ne saurait aider à l'épanouissement des individus et des communautés. C'est par la création d'institutions, dans tous les domaines, dans toutes les sphères de la vie, de l'économie à la famille, en passant par les loisirs, la musique, les sports, les arts et l'école, qu'on favorisera le maintien de la langue et de la culture françaises. Sans institutions, les communautés ne pourront pas maintenir leur culture et, en conséquence, perdront leur langue et leur identité.

Il va sans dire que l'une des institutions essentielles à cette culture, selon **Vision d'avenir**, est l'école et plus précisément un réseau d'institutions scolaires homogènes françaises de la pré-maternelle au postsecondaire avec une structure de gestion appropriée. De plus, les écoles de langue française devraient aussi avoir, en plus d'un personnel enseignant compétent et d'une programmation française adéquate, des services d'animation socio-culturelle afin de proposer aux jeunes des modèles de culture française qui auraient pour effet de contrebalancer les effets des forces assimilatrices dans les milieux.

## Résumé

Le rapport **Vision d'avenir** conclut que l'assimilation des jeunes Canadiens français de 15 à 24 ans



constitue une réalité menaçante pour la communauté francophone du Canada. Pour la contrer, il recommande, entre autres, un réseau d'institutions scolaires homogènes et une structure de gestion française.

### **L'ambition démesurée**

Le travail intitulé **L'ambition démesurée. Enquête sur les aspirations et les représentations des étudiants et des étudiantes francophones du Nord-Est de l'Ontario**, publié en 1990, est le résultat d'un sondage effectué par les professeurs Simon Laflamme et Donald Dennie (avec la collaboration de Yvon Gauthier) de l'Université Laurentienne auprès de 1 500 étudiants et étudiantes du Nord-Est de l'Ontario. Ces étudiants et étudiantes, des niveaux primaire, secondaire et postsecondaire (collège et université), ont répondu à un questionnaire qui cherchait à étudier leurs aspirations scolaires ainsi que leurs représentations culturelles. L'équipe de recherche avait construit un échantillon représentatif de toutes les écoles primaires et secondaires du Nord-Est de l'Ontario ainsi que des groupes étudiants inscrits à l'Université Laurentienne et au Collège Cambrian.

L'étude a conclu que les étudiants et les étudiantes, surtout ces dernières, avaient de très fortes aspirations scolaires. En effet, 94,3% des étudiants et des étudiantes inscrits dans les écoles primaire et secondaire manifestent le désir d'entreprendre des études postsecondaires; 39,3% d'entre eux se proposent de s'inscrire au collège communautaire et les autres indiquent qu'ils se rendront à l'université. Le pourcentage de ceux qui disent vouloir s'orienter vers le collège communautaire augmente graduellement de la 8<sup>e</sup> à la 13<sup>e</sup> année.

De plus ces étudiants et ces étudiantes aspirent à des professions ou à des carrières qui reproduisent très peu la structure occupationnelle du Nord-Est de l'Ontario, soit des emplois dans les mines, dans le milieu forestier, dans la construction, dans les usines ou dans les bureaux. En effet, l'échantillon d'étudiants et d'étudiantes aspire en majorité à des carrières qui placeraient les travailleurs de demain dans la catégorie supérieure ou moyenne-supérieure de l'échelle des statuts socio-économiques des occupations canadiennes.

Ces aspirations élevées se modifient toutefois lorsque les étudiants et les étudiantes arrivent au niveau de la 10<sup>e</sup> année. Bien qu'elles demeurent encore fortes, ces aspirations affrontent en quelque sorte un "mur de réalité" qui fait en sorte que les étudiants et les étudiantes modifient leurs plans de carrières ou de poursuite académique. On remarque également que c'est à ce niveau, soit la 10<sup>e</sup> année, que le décrochage du système scolaire s'amorce et s'accroît. Ce qui fait dire aux auteurs :

Les jeunes franco-ontariens sont ambitieux, tournés vers l'avenir, désireux d'accomplir de grandes choses, comme si cet accomplissement devait représenter le salut. Mais pour la plupart d'entre eux, l'espérance fait place, brusquement ou progressivement à l'incertitude. L'école finit par les désillusionner et par produire des découragements ou, parfois moins gravement, des aspirations modérées (p. 157).

L'enquête cherchait aussi à connaître les représentations d'eux-mêmes et de leur culture franco-ontarienne que détiennent les étudiants et étudiantes francophones de cette région de la province. Pour ce faire, le questionnaire leur proposait une série d'énoncés auxquels ils devaient inscrire leur niveau d'accord ou de désaccord. Les énoncés sont séparés en cinq grandes catégories : la honte (d'être francophone ou de la francophonie en général), le souci de la langue, le jugement de valeur, la suprématie sociale de l'anglais, la culture.

Les réponses à ces énoncés varient certes selon les régions, selon l'âge, selon le niveau de scolarité. Il ne faut pas se surprendre si, dans l'ensemble, l'enquête trouve que l'anglais a une place importante dans les représentations des jeunes franco-ontariens; mais la francité des répondants et des répondantes joue aussi un rôle important dans leur vie, dans leurs représentations. En somme, l'enquête trouve que la culture franco-ontarienne est loin d'être homogène. Il se dégage toutefois



une conclusion : **la francité tend à augmenter avec le niveau d'éducation et avec l'âge.**

La conclusion la plus manifeste de ce chapitre, est que la francité tend à augmenter avec le niveau d'éducation et avec l'âge. L'échantillon déforme probablement la réalité. En effet, puisque tous les individus qui ont répondu au questionnaire l'ont fait dans un milieu scolaire, l'augmentation de l'âge coïncide avec l'évolution éducationnelle. Nous ne croisons pas, par exemple, les jeunes qui quittent l'école, ceux qui sont en milieu de travail. Il est bien possible que, en dehors des institutions d'éducation, les années n'insufflent pas le respect de la francité. Il faut néanmoins savoir qu'une telle tendance serait contraire à celle que l'on retrouve dans la plupart des relations ethniques. L'assimilation passe beaucoup plus communément par les jeunes que par les adultes. Quoi qu'il en soit, l'instruction consolide de toute évidence le francophone dans sa culture et, en milieu scolaire tout au moins, avec l'âge, il tend moins à renier ses origines françaises. Dans de telles conditions, le maintien et le développement de la culture semblent assurés (p. 146).

Cette conclusion rejoint en quelque sorte celle de **Vision d'avenir** à savoir que le maintien et le renforcement d'institutions françaises homogènes constitue un certain gage contre les forces assimilatrices.

## RECOMMANDATIONS

Les conclusions de ces deux résumés et de l'ensemble des recherches en éducation sont évidentes, en tout cas pour le Nord de la province :

1) le taux de décrochage est élevé pour la population franco-ontarienne, particulièrement chez les garçons;

2) l'école franco-ontarienne n'assure pas le développement des compétences; elle n'est pas exceptionnelle en cela mais, dans le cas d'une population minoritaire, les conséquences s'avèrent plus graves;

3) les Franco-Ontariens sont en proie à l'assimilation et

-l'école est le principal lieu d'exposition à la culture francophone en terrain minoritaire,

-c'est principalement en demeurant à l'école, par dessus tout en atteignant les niveaux postsecondaires, que le Franco-Ontarien développe son niveau de francité.

Comment pourrait-on freiner le décrochage scolaire, assurer la compétence des élèves qui s'instruisent dans les écoles franco-ontariennes et endiguer le flot assimilationniste? La réflexion qui débouche sur les recommandations qui suivent a toujours eu en perspective cette question.

Le plus grand défi d'une réforme de l'éducation en Ontario français est de trouver quelque solution à une problématique dont les termes sont contradictoires. L'école se trouve, en effet, dans un dilemme. D'une part, il lui faut démocratiser l'éducation autant que possible. Idéalement, cela suppose que l'école est ouverte à tous et que personne ne la quitte avant d'avoir parachevé ses études, c'est-à-dire avant d'avoir acquis les connaissances fondamentales qui sont déterminées par un organisme légitime et avant d'avoir obtenu la formation qui rendra la personne apte à exercer le métier qui l'appelle. Cette école n'exclut personne à quelque moment que ce soit. D'autre part, il lui faut veiller à ce que les connaissances soient effectivement acquises, à ce que les élèves progressent afin de pouvoir appuyer l'enseignement des niveaux supérieurs sur celui des niveaux inférieurs, à ce que les programmes forment des personnes dont les compétences leur permettront d'entrer en compétition sur le marché du savoir (technique, théorique, critique. . .) avec les personnes qui sont formées ailleurs dans le monde. Cette école exclut à chaque niveau les personnes qui ne peuvent

faire la démonstration de leur savoir.

On tend trop souvent à résoudre cette contradiction par référence aux caractéristiques des élèves eux-mêmes. On veut faire une école pour les doués et une autre pour les autres. On explique le succès par la “douance” et le non-succès par la non-”douance”. Cette philosophie a le malheur de décharger l’école de ses obligations. Si tout s’explique par la nature de l’élève, l’école n’est pas responsable de la production de l’incompétence.

L’école a des devoirs envers les élèves; elle est responsable de tout ce qu’elle produit comme de tout ce qu’elle ne produit pas. Elle porte en elle l’avenir des élèves comme celui des peuples dont sont issus les élèves.

### **Première recommandation**

**Que le système d’éducation ait pour fin bien plus d’assurer la qualité de ses niveaux que l’évolution - voir le simple maintien - de l’individu dans le système d’éducation.**

Cela constituerait un changement majeur de philosophie dans le système d’éducation. Cela toutefois ne renverserait pas toutes les nobles préoccupations de la philosophie actuelle. Il est important ici qu’on se souvienne que les mécanismes inspirés de la philosophie actuelle n’ont pas empêché le décrochage, n’ont pas assuré la compétence - des tests internationaux le prouvent, la politique du non-échec en est un autre témoignage. Il est, par ailleurs, vain de maintenir à l’école des jeunes qui ne progressent pas. Les conséquences de ce changement philosophique sont nombreuses. D’abord, cette modification ne serait pas coûteuse. Deuxièmement, elle assurerait l’acquisition de connaissances. Troisièmement, elle implanterait un système progressif d’apprentissage. Quatrièmement, elle permettrait à l’élève de se voir lui-même évoluer. Cinquièmement, elle ne rendrait pas le jeune absolument responsable de sa propre progression.

Si un tel esprit régnait, si le système d’éducation était constitué dans cet esprit, il pourrait évidemment advenir qu’un élève ne puisse passer d’un niveau à un autre. À l’heure actuelle, ces élèves restent dans les rangs ou, à partir du secondaire, sont poussés dans des programmes inférieurs dont les succès ne sont pas manifestes, pas plus que ne sont évidents les succès des niveaux supérieurs. Cette politique mi-sélective mi-non sélective s’inspire d’un souci de personnalisation de l’enseignement. Or, cet enseignement se fait pour ainsi dire à vide puisque les compétences à développer sont floues. En veillant à la qualité des niveaux, le système d’éducation pourrait instruire les enseignants de ce que doivent acquérir les élèves, à tout moment, et pourrait ainsi faire que les élèves marginalisés bénéficient d’un enseignement réellement personnalisé dont l’objectif serait de les aider à acquérir des compétences évidentes.

### **Deuxième recommandation**

**Que les critères soient établis afin de déterminer en principe ce que doit posséder un élève pour passer d’un niveau à un autre et que des mécanismes de contrôle des connaissances ou des aptitudes soient mis en place de façon institutionnelle, que ces mécanismes ne soient pas définis par un seul enseignant.**

### **Troisième recommandation**

**Que le nombre des programmes (fondamental, général, avancé, enrichi) soit réduit. Que soient mises sur pied des classes dont les fins seront de préparer les élèves qui éprouveront quelque difficulté à évoluer dans les programmes retenus.**

Certes, il n'est pas facile de s'entendre sur les critères de sélection. Mais il est encore plus dramatique de laisser à l'enseignant toute latitude en ce qui a trait à ces critères qui, de toute façon n'ont pas valeur de règle. Par ailleurs, s'il faut reconnaître qu'il est difficile pour quelque raisons de s'entendre, il faut aussi constater qu'il est dramatique de ne s'entendre sur rien. Si les enseignants et les commissions scolaires ne peuvent s'entendre, ils peuvent au moins s'informer auprès du monde de ce qui est acquis ailleurs à tel ou tel niveau. Ajoutons à cela que les compétences qui pourraient être requises d'un niveau à un autre ne peuvent être absolument aléatoires ne serait-ce qu'en mathématique et en langue. L'État pourrait universaliser des examens en se donnant pour référence le monde. Ces examens constitueraient un défi pour les enseignants eux-mêmes. Il n'est pas important que l'État (provincial ou fédéral) constitue le seul dénominateur, ni ne constitue un dénominateur. Ce qui est important, c'est que des critères soient généralisés et servent effectivement de critère. L'idéal serait probablement que l'élève soit soumis à un examen défini par l'État provincial et à un autre défini par une ou plusieurs commissions scolaires. Cela assurerait une certaine homogénéité de la compétence dans toute la province, voire dans tout le pays, en même temps qu'une connaissance par les populations régionales de ce qui est spécifique à la région.

S'il est important que l'enfant apprenne à communiquer, il ne l'est pas moins qu'il apprenne à maîtriser les codes qui lui permettent de communiquer. Communiquer, ce n'est pas simplement dire, c'est se rendre compréhensible aux autres à travers une langue qui déborde la personne. Apprendre les codes d'une langue, en outre, c'est apprendre à formuler des idées, c'est apprendre à penser, à créer. Rien n'est plus important que cela pour un minoritaire.

#### **Quatrième recommandation**

**Que, dans l'enseignement, on insiste aussi bien sur la communication que sur la maîtrise des codes qui rendent la communication possible.**

\* \* \*

Bon nombre de jeunes se retirent de leurs programmes scolaires, principalement autour de la dixième année. L'école ne constitue pas pour eux un milieu stimulant. Il est probable que son caractère indéfini soit partiellement responsable de ce phénomène et que, par conséquent, en façonnant les niveaux, on freine un certain type de décrochage. Quoi qu'il en soit, l'abandon est attribuable à deux autres facteurs : la méconnaissance du rôle de l'éducation dans les sociétés modernes, surtout post-modernes et, dans le cas franco-ontarien, la méconnaissance du rôle du français dans le monde à cause de laquelle se développe un mépris naïf à l'égard de ce qui est francophone et une admiration toute aussi naïve à l'égard de ce qui est anglophone, mépris et admiration qui sont cause de ce qui fut appelé une "ambition démesurée".

#### **Cinquième recommandation**

**Que des campagnes de sensibilisation informent les jeunes, dès la huitième année et jusqu'à la onzième année, du rôle de l'éducation dans les sociétés post-modernes.**

Ces campagnes de sensibilisation auront pour effet de contrer une certaine idéologie selon laquelle il ne sert à rien de s'instruire, idéologie particulièrement importante chez les jeunes garçons du Nord-Est de l'Ontario. Non seulement inciteront-elles à demeurer à l'école, mais en plus elles stimuleront le désir d'apprentissage. Cette incitation à s'instruire, par ailleurs, favorisera la francité et contrera l'assimilation.

\* \* \*



### **Sixième recommandation**

**Que des cours aient pour objectif d'instruire les Franco-Ontariens du caractère pluriel du monde (c'est-à-dire non exclusivement anglophone), de la place du français dans le monde et de la culture franco-ontarienne.**

Cet enseignement aura pour effet de démystifier l'idéologie du minoritaire francophone en Ontario, idéologie qui est véhiculée entre autres par bon nombre d'enseignants. En apprenant que l'anglais n'est pas tout, qu'on peut être brillant sans être anglophone, que la francophonie est productrice de culture, de science et de capital, qu'il existe une culture et une science franco-ontariennes modernes, le jeune sera moins empressé de devenir anglophone et de quitter l'école.

\* \* \*

En ce qui a trait au Nord de l'Ontario, il importe d'encourager les élèves à vouloir s'instruire dans le Nord. On sait que les diplômés ont tendance à vouloir exercer leur métier dans la région où ils ont obtenu leur diplôme. Afin d'inciter les jeunes franco-ontariens à s'instruire en français dans le Nord, il importe de leur mettre en perspective les programmes de niveau postsecondaire en français qui puissent les intéresser.

### **Septième recommandation**

**Que les programmes postsecondaires partiellement offerts en français le soient intégralement et que soient créés les programmes qui font défaut aux institutions postsecondaires du Nord.**

**Vision, Prupose, Values and Principles:  
A context for the Commission's  
recommendations regarding the future  
direction of education in Ontario**

**Stephen Hagarty**

February 1994





**Hagarty, Stephen.**

***Vision, Purpose, Values and Principles: A context for the Commission's recommendations regarding the future direction of education in Ontario. February 1994.***

***(Vision, objectifs, valeurs et principes : contexte des recommandations de la Commission sur l'orientation future de l'éducation en Ontario), février 1994.***

Hagarty has reviewed a myriad of documents about education from ministries/ departments of education, school boards, commissions and briefs to commissions, reports from around the world, books, scholarly articles, etc. They are arranged under the headings of vision statements (not many, vague and non-controversial, but some lament the lack of vision statements), values and principles of education (many, mostly to be categorized as universality of education, equality and equity, individuality and choice, flexibility and responsiveness, accountability, partnership, integration and participation, prosperity, personal and social responsibility, excellence, lifelong learning), and the purpose of education. When considering what has been written about the purposes of education, Hagarty found four consistent themes: (1) an affirmation of the significance of education for economic survival and prosperity for both individuals and their own society; (2) an affirmation of the importance of a balanced education which embraces intellectual, social, cultural, and physical goals, as well as occupational; (3) an affirmation of the importance of education for the development of citizens imbued with personal moral and social values; and (4) an affirmation of a logic which views the development of personal self-esteem, self-confidence, and a love of learning, as proceeding from educational achievements and a learned process of succeeding.

In the briefs presented to the Royal Commission on Learning, purposes of education included the development of traditional basic skills, of new basic skills, and the provision of co-operative education opportunities. Values cited in the brief included partnerships, excellence, equity, accountability and choice of schools and curricula.

“Additionally, and seemingly more pronounced in some documents, was the juxta-positioning of economic and social goals in the statements of purpose. Also, the linkage between school and work often emerged as a prominent theme, as did the purpose of education being a preparation for the ‘marketplace’ of both ideas and competitive work skills. Still another theme was the social activist insistence that one of education’s purposes is to develop the ability to change the world and its traditional structures and relationships for the betterment of society” (p.17).

\* \* \* \* \*

L’auteur a recensé de très nombreux documents relatifs à l’éducation, publiés par des ministères de l’éducation, des conseils scolaires, des commissions royales (y compris des mémoires présentés à ces dernières), ainsi que des rapports provenant du monde entier, des livres, des articles d’érudition, etc. Tous ces documents sont organisés sous les rubriques suivantes : énoncés de vision (peu nombreux, vagues et ne donnant pas de prise à la controverse, ce qui n’empêche pas certains commentateurs d’en déplorer la rareté); valeurs et principes de l’éducation (ces documents sont nombreux et peuvent être classés dans les domaines suivants : universalité de l’éducation, égalité et équité, individualité et libre choix, souplesse et capacité d’adaptation, redevabilité, partenariats, intégration et participation, prospérité, responsabilité personnelle et sociale, excellence, éducation permanente), et enfin objectifs de l’éducation. L’auteur dégage quatre thèmes qui reviennent dans les documents relatifs aux objectifs de l’éducation : (1) l’affirmation que l’éducation est importante pour la survie économique et la prospérité des citoyennes et citoyens et de la société même; (2) l’affirmation de l’importance d’une éducation équilibrée, rassemblant les objectifs intellectuels, sociaux, culturels et physiques tout autant que professionnels; (3) l’affirmation de l’importance de l’éducation pour l’éducation de citoyennes et de citoyens imbus de valeurs morales et sociales personnelles; et (4) l’affirmation d’une logique dans laquelle le développement de l’estime de soi

au plan personnel, de la confiance en soi et du goût d'apprendre procèdent de la progression éducative et d'un processus de réussite acquis.

Les mémoires présentés à la Commission royale sur l'éducation proposaient un certain nombre d'objectifs de l'éducation : développement des aptitudes de base traditionnelles, acquisition de nouvelles aptitudes de base, et chances d'éducation en alternance école-travail. Au nombre des valeurs évoquées dans les mémoires, citons les partenariats, l'excellence, l'équité, la redevabilité et la liberté de choisir les écoles et les programmes d'études.

« En outre, notamment dans certains documents, les auteurs juxtaposent les objectifs économiques et sociaux dans les énoncés d'objectifs. Les liens entre l'école et le monde du travail constituent souvent un thème de premier plan, ainsi que le rôle de l'éducation comme préparation au "marché" des idées et des aptitudes professionnelles compétitives. Un autre thème important à signaler : les activistes dans le domaine social insistent sur le fait que l'éducation a entre autres pour objectif de développer la capacité de changer le monde et ses structures et relations traditionnelles, en vue d'améliorer la société » (p. 17).

## 1 INTRODUCTION

The following review addresses an array of concepts related to the context for Royal Commission recommendations on the future direction of education in Ontario.

These concepts pertain to the vision, purpose, mission, or role of education, as well as the values or principles which inspire the contents of the vision or inform the mission or purpose of the educational system.

The ideas which are identified here are those advocated by a variety of jurisdictions, populations and interest groups, or recommended/commented on by a variety of authors. The attached list of references indicates the sources for this report (Attachment B).

## 2 VISION STATEMENTS

Comparatively few of the documents which were reviewed for this report refer to the concept of a “vision” for education, or specifically spell out what could be termed a “vision statement”; that is, a statement - more or less elaborate - regarding specifically what the future should or will hold for the various stakeholders. Where vision-like comments are made, they tend to be brief, often rhetorical, and hardly arguable.

In fact most of the vision-like pronouncements appear in the formulations of statements which stand so far back from what could be construed as contentious, that divergence of opinion at this level of “policy” seems unlikely.

One noteworthy exception to this generally missing item is found in the National Commission on Education’s Learning to Succeed report (1). Here a chapter specifically entitled, “A Vision for the Future”, describes in some detail the world context in which the learner/teacher finds her/himself - world population growth; scientific, technological, and biological advances; competitive world markets, major demographic shifts and increased internationalism; a knowledge revolution; et al.

While major emphasis is given in this section of the National Commission’s report to the economic implications of world events, a full and clear statement is also made that “education, though vital as it will be to future economic success, involves far more than the pursuit of material rewards”. Reference is made to such other pursuits as:

- spiritual, moral, cultural, mental and physical development.
- preparation of people for both the opportunities and responsibilities of life.
- transmission of the values of society.
- understanding of democracy and its workings.

The chapter concludes with seven statements described as “The Commission’s Vision”, followed by the identification of seven goals to be achieved. Although the specification of the seven vision statements and the seven goal statements tends to reflect a formulation more suited to management-by-objectives than vision language, the chapter in its entirety sets out in a fairly clear and precise way what the Commission envisages for all of the stakeholders involved in the educational system.

Further, the National Commission in taking up its task gives full recognition to the fact that ideas and opinions about the purpose and principles of education frequently vary and sometimes conflict. But in setting out its vision of the future the point is made that the Commission’s role is proactive more than reactive, and that its aim is “to promote a consensus about the needs of the future and to bring about the convergence of views which at present diverge”.



This same perspective is reflected among those who see the development of commitment to a common vision and shared goals to be - however challenging - an essential undertaking for the educational system (21).

Now although there were relatively few of the reviewed documents which dealt with the concept of a “vision” as such, there were comments that suggested a recognized failure in this regard. One author spoke of the retreat of the school system nostalgically to comforting myths of the past, such as academic excellence and basic skills in a world of singular values, rather than a forward advance which defined new structures and visions for the future (24).

Another author noted that, while the federal government had injected billions of dollars into various aspects of basic and post-secondary education, it had nonetheless not followed a coherent, national, or strategic purpose, partly because there is no one education system in Canada (25).

Still another author criticized the education system for having no identity of its own, little or no sense of where it is going, or even why it exists. The charge laid at education’s doorstep was that it keeps importing its mindscapes, models, concepts and definitions rather than inventing them (26).

Whether or not the issue is importing or rather a vulnerability to strong exporting forces is a moot question. For example, the Premier’s Council Report, *People and Skills in the New Global Economy*, speaking in terms not far removed from vision language, had this to say about schools and schooling

Schools, it said, cannot be perceived as assembly lines turning out young educated employees, nor training centres offering programs than can be readily retooled and adjusted whenever job creation targets and specifications change. On the contrary, schools, it underlined, are complex social institutions that help shape the knowledge, skills, behaviours, and values of future generations.

And then, in an important qualifier, the report goes on to say, that understanding the broader social context of schools does not, however, diminish their role in preparing students for the world of work; as well as providing general education, schools must prepare students for specific destinations; they must also consider the kind of skills and knowledge the new technological era will require.

This document, unlike most others reviewed to date, does seem to have a vision of education in mind when it says that defining the role of the educational system only in terms of the needs of the economy is both unreasonable and unrealistic. Nonetheless, it provides a definition, a vision if you will, that addresses the needs of the workplace without overtly making workplace needs the fundamental rationale for education’s role.

Tomorrow’s workplace, it argued, will not be composed of individuals with highly specialized skills and knowledge, performing various routine tasks. Rather, it will be a workforce made up of adaptable individuals, able to formulate and solve problems quickly, to anticipate need for action, to pass critical judgment, and to integrate thinking, knowledge, manual dexterity and physical tasks. Consequently, the educational system must emphasize broad critical and socially interactive learning which equips students for the full range of experience they will encounter in the future (35).

This last sentiment does not seem far removed in spirit from the perspective of the Ontario government’s current Minister of Education and Training who has observed, “I think there are few things we can give students as precious as the desire to be involved and active rather than passive and uncritical” (32).

Among some of the other documents which attended more specifically to a vision for education, were ones whose perspectives ranged from a fundamental recognition of the nature of the human intellect, to an emphasis on the primacy of personal and social development, an expression of an underlying value system, a projection of specific desired goals to be achieved, and finally to an

emphasis on society's responsibility for providing future generations with the opportunities the current and previous generations have enjoyed. For example:

- The Nature of the Human Intellect

In a speech delivered by a director of a secondary school in New York City, the argument was made that it is necessary for the educational system to say up front, in a credible way, what it truly honours about the human intellect; why ideas are powerful; why the word matters; why schools themselves need to be intellectual communities and centres of learning, engaged in the best example of the art they are supposed to engage their students in (61).

Similarly, though expressed more philosophically, the renowned Canadian philosopher and theologian, Bernard Lonergan, S.J., is quoted as calling for the recognition of the innate orientation of an inquiring intelligence; of the natural unfolding of the drive to know, the desire to understand, to see things in a new light, to grasp how things hang together, to come to know "why", the reason, the cause (62).

- The Primacy of Personal and Social Development

In a report on meeting the needs of adolescent learners, the Ontario Federation of Women Teachers' Associations quotes the Carnegie Council Task Force on the education of young adolescents. The Council's vision of education refers to helping students acquire durable self-esteem, flexible and inquiring habits of the mind, reliable and relatively close human relationships, a sense of belonging to a valued group and usefulness in some way beyond the self, a constructive expression of their inherent curiosity, an exploratory energy, and a basis for making informed, deliberate decisions (70).

- An Expression of a Fundamental Value System

TheodoreSizer, in his recent book on redesigning the American Highschool (72), expresses what he proposes should be a common vision of education built on the following beliefs:

- that the central focus of education must be on the intellect, helping each student to learn to use his or her mind resourcefully and well, and that other enterprises - however worthy - should yield to this central focus.
- that the central focus of the intellect should apply without exception to all students, and that those who seem weakly disposed or who take to serious intellectual effort with difficulty, have more of it rather than be switched to something less demanding.
- that education must model the thoughtful life that should infuse a civil and rich democracy.
- that personalization - each student being accorded the respect of being known well - is a necessary condition for effective and efficient teaching.
- that students must be able to display their grasp of important ideas and skills.
- that incentives are at the heart of serious learning.
- that effective education must be coherent, with a sensible sequence of activity for each student, and with academic demands that are clear and connected.

- that serious learning is hard work which cannot be done by anyone but the learner, and school must be a place where this serious engagement can take place.
  - that more accountability and responsibility can be given to students.
  - that the environment conducive to learning must be a safe, engaging, inviting and joyful place for students and teachers.
  - that the education system must demonstrate a more effective approach to education and with the same resources.
- An Expression of Desired Goals

The purpose of education established at the Charlotteville summit meeting (71) expressed a vision in terms of intended goals for the system as follows:

- All children will start school ready to learn.
- At least 90% of highschool students will graduate, having demonstrated competence in challenging subject matter including English, Mathematics, Science, History, and Geography.
- Graduates will be first in the world in Science and Mathematics.
- Graduates will be prepared for responsible citizenship, further learning, and productive employment.
- Schools will be free of drugs and violence, and will offer a disciplined environment conducive to learning.

Similarly, Alberta's Ministry of Education (79) referred to achieving its vision for the system in terms of attaining a list of general, albeit vaguely defined, goals for students, teachers, the curriculum, and the schools themselves such as, for example: students developing strong basic skills, excelling in science and technology, staying in school, and achieving superior results; teachers excelling in teaching; the curriculum being viewed as excellent; and schools providing equitable educational opportunities for all.

- A Recognition of Social Responsibility

In its Blueprint for Learning in Ontario (59), the Ontario Progressive Conservative caucus (reflecting what it said was the traditional wisdom of Native Canadians), emphasized the responsibility of education for contributing to the success of future generations. It asserted its belief that we do not inherit the earth from our ancestors, but borrow it from our children, and that this philosophy must be applied to the future of our society. We must dedicate ourselves, it said, to providing children with the same opportunities for personal enrichment and success that we have enjoyed.

Since the future, the caucus goes on to stress, will require increased knowledge, understanding and skills, the challenge for the education system now is to assure that the opportunity to achieve these attributes is within reach of all children. To accomplish this, it concludes, education must be woven into the fabric of the province's strategic purposes and integrated into both a plan for economic renewal and coordination with community services.

Ten years ago, the Strategic Planning Task Group of the Ministry of Education and the Ministry of



Colleges and Universities, responding to the final report of the Commission on Declining School Enrolments in Ontario (60), observed:

The values of a society are both reflected and shaped by its educational system. In its reflecting role, education must honour the values and ideals considered important by society; in its shaping role, education must provide leadership and vision.

The selection of documents referred to above, suggests that taking leadership through the definition of a vision for education, will require a clear statement of what the system fundamentally values, and precisely what, in the light of this philosophy, it is seeking to achieve for each of the essential components of and stakeholders in the system.

### 3 VALUES and PRINCIPLES

Values and principles, more than any other factor not unexpectedly were found to drive definitions of the purpose of education to a significant degree. In those few instances where the concept of “vision” were addressed, values and principles were also frequently found to be the guiding stars in the conceptual firmament.

The range of the values or principles which are precisely specified or indirectly alluded to is extensive, amounting to over two dozen more or less distinct formulations. Those which are identified below, however, emerged more strongly and consistently as philosophical themes. As can be seen in their operational expressions, they often embrace the content of other values or principles as either necessary premises or logical conclusions.

#### UNIVERSALITY

- Education and training must be suited to the needs and capabilities of the whole population, and not only those of the academically more capable, enabling not just a minority but a large majority of young people to obtain as much from their education as they are capable of achieving. There must be respect for the fact that everyone has the entitlement to go on learning, whether for employment purposes or to fulfill other personal goals, and there must be an opportunity provided to use this entitlement. (1).
- Public education must serve all. The target population should be students from kindergarten through Ontario Academic Credits. It should also serve adults, but under a separate funding mechanism (6)
- Education must be focussed on learning for all in the community (8).
- Ensure education is responsive to all the citizens, addressing the needs of all of the citizens (10).
- Knowledge and teaching must be made universally available (19).
- Education should enable all learners - children, youth, and adults - to develop their full potential. All - children, youth, and adults - are entitled to an education that prepares them for the challenges of life (27).
- The foundation skills (motor, math, writing, reading, ability to learn, and communications) must be universally accessible and provided as a basic entitlement, for so urgent is the need to adapt to social, economic, and

technological changes, that the education system cannot afford to leave anyone out of its mission (35).

- The Voucher School System ensures that an education is available to every child, while capturing all the benefits of a private school system (41).
- The role of the elementary and secondary education system will be most relevant to economic and social needs, and hence the needs of young people themselves, if schools provide everyone with a high quality general education. Further, all children (except those with specific and insuperable mental or physical handicaps) can be brought to a common necessary level of knowledge and skills (42).
- The Education system should ensure that all members of society can become participants (60).
- The new educational system is guided by a national vision of a better future for all Canadians with all Canadians having access to quality basic education in their home communities. (74).

## EQUALITY and EQUITY

- Every student should have equal access to education, and every Board should have the resources needed to provide equality of education opportunities to every student so that they may achieve their objectives. Also, the establishment of standards must be fair and reasonable for the vast majority of students (6).
- Ensure that equity considerations inform policy and practice (10).
- The purpose of the educational system is to make sure that all students are given the opportunity to develop to the best of their ability, taking account of differences in physical and mental abilities, language and cultural backgrounds, gender and geographic location. (11)
- All students are to acquire the skills, knowledge, and love of learning demanded by today's world, and leave school with the skills and knowledge needed for work, community life, or further learning, (for) we believe that all children can learn and succeed, and every student can graduate at a high level of achievement (11).
- Equity must prevail in any policy of education (19).
- Many authors affirm the principle that schools can make a difference regarding the achievements of their students irrespective of social backgrounds through a pursuit of educational equity that is predicated on a fundamental belief that all students can learn (24).
- There is a commitment to a focus on equity through providing everyone with equal access to opportunities for learning, and reducing barriers to these opportunities whether due to gender, race, physical disability, geographic isolation, economic background, traditional attitudes towards age, and the need to learn in ways different from the majority (27).

- The New Democratic Part report emphasizes equal opportunity and equality of outcome for all students, with a clear focus on helping each student achieve his or her potential in physical, intellectual, social, emotional, cultural, and moral development (28).
- There must be a removal of barriers to learning so that everyone can reach their full potential (30).
- There must be a “people strategy” that aims for inclusiveness and fairness with the ability to participate in the economy and have full access to a chosen career, and equitable opportunities to upgrade skills and qualifications (35).
- There should be the provision of a single, undifferentiated high-quality educational stream for all students without expecting all students to attain the same level of achievement, but by providing sufficient help and remedial attention for those who encounter difficulties, and encouraging the most gifted to achieve beyond the formal requirements (42).
- The Ministry of Education in Ontario should strive to provide in the schools of the province equal opportunity and equality of outcome for all, allowing all children to develop their full potential regardless of their class or economic status, their gender, ethnic origin or religion (44).
- There must be a creation of greater access to educational opportunities in the attainment of equal opportunity (48).
- The promise of equality for each and every student must be every bit as important to the educational system as the potential of individual self-fulfillment, and education must be dedicated to eliminating the systemic obstacles that prevent equality of outcome for so many (54).
- Among the principles which must govern the funding of the education system is equality of educational opportunity and equality of financial burden (56).
- All students should graduate from high school with advanced language and mathematical skills and the ability to learn the marketable skill of their choice (59).
- We believe that everyone must have the same opportunity for advancement, that education and training must be structured so that all Ontarians have the opportunity to reach their potential, with enough respect for every person to give him or her true equality of opportunity, while recognizing that no school or government is capable of ensuring equality of outcome, nor should they try to do so (59).
- Social equity is promoted by addressing the needs of special groups and maintaining the critical role of the public school as an equalizer in Canadian society (74).
- We believe in a new focus on equity to ensure that our education system and what students are able to achieve through it are as fair as possible (77).



## INDIVIDUALITY and CHOICE

- Offer real opportunity to all so that people can choose, led by their own talents, interests, and ambitions, and create an educational system that is rich and varied enough to offer this opportunity (1).
- The meeting of individual needs is among the education policy rationales (2).
- Nurture individual gifts and the ability to learn based on individual potential (9).
- Set high goals for all students while recognizing that each student can achieve them in different ways (11).
- The curriculum should be planned and adjusted to suit individual talents, needs, and interests (12).
- In the Dutch education system the value of choice is most important. The goal is to address the individual's talents, interests, and levels of learning without sacrificing equally high expectations of results across all levels, academic and vocational (22).
- There must be the opportunity to develop one's potential as an individual as well as a contributing member of society (27).
- The Hall-Dennis report embraced the development of the individual's potential as the central purpose of education, with the schools accommodating to student interests and needs (28).
- More and more the education system is learning to accept and value the diversity of students and their learning styles and abilities (32).
- All young people in school should have the opportunities to explore their potential and to identify where their own interests and abilities lie (33).
- Individuals must have every opportunity to choose and pursue any educational pathway, and no choice should limit further choice or the pursuit of alternative pathways, for there should be no dead ends (35).
- With a Voucher School System, parents and students could choose the school - public or private - that they felt best met their educational goals, because the interests of taxpayers and parents, such as variety, are not only neglected by school officials, they are also disparaged (41).
- The role of the educational system is to develop each individual child, recognizing his or her own predispositions, strengths, weaknesses, interests, and learning styles (42).
- An objective of the Catholic School System of Ontario is to help students to develop their individual potential (43).
- The education system must offer parents the option of mainstreaming their children if they choose, providing children with the necessary support (44).

- There must be a creation of new choices as well as greater access to the choices that presently exist (48).
- We must provide career choices and varied opportunities for the next generation (59).
- In the new education system, students will become consumers, examining the opportunities and making informed choices. Students and their guardians will have access to a great deal of information about educational options. Secondary school students will be treated like adult students rather than elementary school students in terms of responsibilities and choices. And all potential students will undergo extensive screening processes, including assessment of ability, learning style, and prior learning to ensure that they enter programs best suited for them, and a system of gradeless education, or program continuity, will encourage students to work at their own level of ability (74).

## FLEXIBILITY and RESPONSIVENESS

- There should be sufficient system flexibility to allow for the meeting of local needs within provincial standards, extending to the possibility of year-round schools, multi-purpose sites, and integrated services with other agencies (6).
- Education should use a variety of learning modalities including self-directed, individually supported group learning, cooperative learning, social and organizational learning (8).
- The curriculum should be flexible, with approved electives and choice of courses (11).
- There should be flexible learning arrangements with programs adapted to the needs of students (12).
- The existence of a wide variety of economic, social, and cultural situations calls for different approaches to educational development (19).
- Multiple models of excellence are to be preferred (21).
- In the Dutch education system flexibility in being able to select a public or private school, a denominational or non-denominational school, a comprehensive or small school - all offering the opportunity to enter university - is highly valued (22).
- In the United States the value of choice and system flexibility are coming to the fore with the addition of charter schools and the voucher system to mainstream public education, and the recognition of the value of system flexibility so that students have the opportunity to specialize (22).
- Flexibility in teaching styles and methods will be central to secondary schools of the future, and it will be important to recognize and sponsor broad teaching repertoires and multiple models of excellence, to make menus of choice and discretion, not mandates of standardized imposition (24).

- Education must be flexible enough so that learning can occur when, where, and in ways that it is needed, so that it is responsive to the various needs of students (27).
- Different children require different educational experiences to help them develop (29).
- With a Voucher School System, no two schools would likely be the same, for while assuring that provincial education standards were achieved or exceeded, each school would offer its own unique features through not only class skills but also programs such as music, sport, arts, computer science, and so forth (41).
- The education system should be more flexible in accommodating students with children and those with 9jobs, including young adults who leave school for a periodof time to accept full-time employment (44).
- The Education Act should ensure that Boards have the required flexibility to adjust semester lengths and make minor variations in the length of the school year or day (55).
- Education must be responsive to the specific needs of the Francophone community (57).
- Education will become consumer-driven, with producers offering greater choice and higher productivity, with schools run on a contract or voucher basis by many different organizations which are completely deregulated, allowing for extensive specialization, variety, and competition. Schools will also be open year-round with three or four on-going semesters and the academic day, year, facilities and schedule all flexible. Further, the education system will provide flexibility and integration of age groupings so that individuals are not automatically limited to certain subject matter by age (74).
- Our education system must be adaptable so that learning does not begin or close at a certain age (77).

## ACCOUNTABILITY

- Resource accountability is among the education policy rationales. It is a major issue in the context of the Information Age and the globalization of the economy, technological development, demographic changes, shrinking resources, and maintaining competitiveness (2).
- The electorate should have the ability to hold officials responsible for their actions;accountability for the results of students' progress should be shared by teachers, administrators, and parents; and sch ools should develop, organize, and deliver curriculum around outcome-based approaches (6).
- There should be system accountability for producing results in terms of objective measures of knowledge and skills learned by the students measured against clearly recognizable standards of achievement (7).
- There is an obligation to answer for the results achieved in school, which presumes performance evaluations of students, comparisons with other jurisdictions, communication with parents, and evaluation of schools (11).



- Responsiveness and accountability are essential (12).
- There should be broader systems of accountability with a decentralization of decision-making and authority (21).
- Schools must be considered legitimate in the eyes of their relevant publics, and must develop explicit structures and procedures that give a convincing account that the proper means-ends chains are in place to accomplish stated purposes (26).
- Only if the educational system is clear about its responsibility can it expect others to be clear about theirs; education must be accountable to the community through restructuring programs to ensure that schools meet the diverse needs of all, developing benchmarks that describe the basic skills students can be expected to have mastered (27).
- The Conservative Party report identifies the need for more attention to accountability, with clear goals and measurable results in language and math skills (28).
- Teachers need to be accountable to both parents and the community at large for the preparation of students for the future (30).
- The interests of taxpayers and parents, such as accountability, are not only neglected by the school officials, they are also disparaged (41).
- There can be no effective pursuit of excellence in educational outcomes without meaningful accountability, and there can be no meaningful accountability without measurable standards of accomplishment (42).
- We must make our evaluation and training systems accountable to the people they serve, both financially and in terms of curriculum and standards (59).
- It must be demonstrated that highschool students have competence in basic subject matter (71).
- Education will be consumer-driven with consumers demanding more relevance and accountability (74).
- We believe in being accountable for our decisions and actions (77).

## PARTNERSHIP, INTEGRATION and PARTICIPATION

- Students and parents should have the mechanisms whereby they can have input in the evaluation of programs and schools as well as teachers (6).
- There is the need to establish an educational system that is based on participation by everyone who is a stakeholder in the learning community. (8).
- Parents and other sectors of the community should have the opportunity to participate in the educational system (9).

- Education is the business of society as a whole - government ministries, business, industry, labour, educational agencies, and parents (10).
- There should be involvement from the broadest level of society to the individual learner (12).
- There should be participation by all parties concerned, with education being the responsibility of the whole of society (19).
- There is commitment to an integrated approach to meet the needs of children, youth, adults, and families, as we look for ways to bridge the gap between schools and those services that deal with other aspects of every day life such as: cooperation with parents, students, community agencies and other government ministries in meeting the diverse needs of learners; and cooperating with community agencies and other government ministries in the development of ways to deliver health, recreation, and social services through local schools (27).
- The Economic Council of Canada's report identifies (among four major areas of change for education) the need for a close integration of school work and training through partnerships, parental involvement, and adaptation to individual needs and social changes (28).
- Only an education system integrated with other broad social systems and fundamental processes of human development can fully address our most pressing societal problems. Also, there is a need to prepare students for the workplace in ways which are relevant to the ways in which it is collaboratively organized (29).
- Education must be a shared responsibility of the community (30).
- The future of education will, in the end, depend on partnerships (32).
- The community, parents, business, and labour have a stake as well as a role to play in the assurance of excellence in education, and the commitment of the multiple stakeholders and players in the education system is necessary to effect change, for change must not only make sense, it must seem possible (35).
- Mainstream services, including schools (as well as public health, recreation, and child care) should become the pivotal point for organizing a service response to the entitlements of children; specialized services must organize their activities in relation to these mainstream services through formalized linkages. For children should be maintained within their natural environments, including the school (as well as the home and community) to the greatest degree possible; this will require the specialized services to support children in their normal settings. There must be a single major physical centre which operates as the hub of services for children within communities; where possible, the school should be the locus of service provision (36).
- The Voucher School System places parents in the position of consumer owners, which encourages their participation and heightens their concern for the quality and effectiveness of their child's education (41).
- Schools cannot and should not be expected to function in isolation from the rest of society. Parents, businessmen, community organizations, labour unions, and political decision-makers all have essential roles to play in providing a quality

education. Further, consideration should be given to contracting with community-based social service agencies to locate within highschoools in order to provide ready access to required services such as infant care and child care (42).

- An objective of the Catholic School System of Ontario is to involve parents in the educational process (43).
- The education system is the responsibility of parents, teachers, administrators, taxpayers, corporations and children themselves, who must participate in the process of designing and maintaining the system. And schools should be more than places of 'tr additional' education; they should be centres of community activity for people of every age - places where young children go for child care, and where adults go for adult education (44).
- The education system should participate with business, industry, recreation, and social services in developing and assessing community education programs (45).
- It is necessary for the education system to go beyond 'multicultural' education to one that is consciously anti-racist and which speaks clearly to democratization and decentralization of schools and their role in the community. This is clearly an issue where local community input is vital, and where parent participation is key (46).
- Existing NDP policy linking child care to the education system and locating it mainly in the schools should be reaffirmed (47).
- An expanded social manda te and changing demands on schools means that achieving the goals of education cannot be solely the responsibility of the education system; ministry, boards, and schools must work with other ministries, relevant agencies,service providers, parents and other concerned groups in the community (54).
- We cannot expect schools to meet the challenges alone. We need to create partnerships, to encourage more parental, community, business, and labour cooperation. And there must be a greater coordination of the education system with community agencies, the Ministries of Health and Community and Social Services, as well as partnerships with the private sector (59).
- Responsibilities for the quality of our educational system shoul d be shared with employers, employees, the business community and government (63).
- The new formal education system will no longer be separate from other institutions and practices in the community; it will be embedded with social services and economic and community development. Schools will act as broker for support services in the community, coordinating not duplicating services to meet the needs of students, and to prevent problems rather than remediate them. Further, the system will be linked with the media as a learning resource as well as community facilities such as libraries, science laboratories, computer facilities and recreation facilities (74).



## PROSPERITY

- The Prosperity Secretariat's report, "Prosperity Through Competitiveness", advances the argument that national prosperity in the future can only be achieved through increasing Canadian's competitiveness, and that means improving the efficiency of the education system (25)  
Among the roles of education is to help build a prosperous society (27).
- The development of learning is essential for economic growth (29).
- Only economic prosperity will allow Canadians to exercise social responsibility toward their fellow Canadians, people of other nations, and the environment, and if we expect individuals to assume a degree of responsibility for their prosperity, we must assure that they have the necessary skills to assume this responsibility (31).
- High levels of skills are a critical factor in the acquisition of new technologies which are necessary to secure productive growth and improvement in living standards (39).
- The prosperity of the next generation depends on how well prepared young Canadians are to take advantage of new opportunities. Skills and knowledge are the keys to future prosperity (59).

## PERSONAL and SOCIAL RESPONSIBILITY

- Educating young people in skills and qualities such as responsibility will be important goals for Canadian schools in the post-industrial society (24).
- At root, education is a cultural enterprise concerned with, inter alia, values such as personal responsibility, economic justice, and civic virtue (25).
- Among the roles of education is to help build a responsible society (27).
- The Liberal Party paper listed the development of social and environmental responsibility among the broad purposes of education (28).
- We need to produce citizens who care about the environment, other people, and themselves (30).
- An objective of the Catholic School System of Ontario is to develop in students a sense of responsibility for the well-being of their local community, province, and country (43).

## EXCELLENCE

- The interests of taxpayers and parents, such as excellence, are not only neglected by school officials, they are also disparaged (41).
- We must first provide excellence in our education system, for it will open doors to opportunity for our children and our nation (59).
- Perhaps the greatest obstacle to excellence in our schools is the lack of high expectations and their more tangible expression, high standards (59).

- Students should have the opportunity of acquiring and practising skills of the highest order (63).
- In the new formal education system, objective evaluations in each subject area will be set against provincial, national, and international standards, and all students will be assessed in a national testing system. The evaluation system will be focussed on an achievement/mastery model. Individual student achievement, however, will not be compared with other individuals but will be based on individual progress and potential (74).

## LIFELONG LEARNING

- In the Prosperity Secretariat's report "Learning Well - Living Well", the development of a commitment to life long learning - a culture of learning - is presented as a necessary precondition to substantial economic health (25).
- The Economic Council of Canada's statement, A Lot To Learn, notes quite rightly that the traditional distinction between school and work has become blurred; learning is a lifetime process; people move constantly between learning institutions and the labour market, and many are engaged in working and learning activities simultaneously (39).
- The education system should provide an opportunity for people to fill in the gaps left by an inadequate public school education, providing upgrading in literacy and numeracy skills, as well as courses of individual interest, creating a climate of lifelong learning (45).
- We see learning as a lifelong and continuing process and believe that the goals of the system must be adjusted accordingly (54).
- We should be encouraging lifelong learning as part of a student's future plans (59).
- The rapid economic changes in recent years has led to a re-thinking of the important linkage between education and work, and the importance of lifelong learning (63).
- Lifelong learning to the highest standards will reward Canadians with lifelong employability; we shall be learning a living. Employment is the engine which drives our standard of living and leads us to a world class lifestyle (68).
- The education system will adopt and systematize a lifelong learning culture which is concerned with personal growth, community participation, leisure and creativity (74).
- We believe in lifelong learning because learning does not begin or cease at a certain age (77).

## 4 PURPOSE OF EDUCATION

Some of the documents reviewed in this report present formal and rather comprehensive statements on the purpose of education. Most do not, even though the opinions expressed or reported on frequently articulate thinking which clearly pertains to education's purpose, role, or mission.

The summary which follows has been arranged by source for the sake of providing a quick reference to who is saying what. As well, the material has been organized under each source in a way which brings together the various statements according to a roughly standardized framework - items which tend to be scattered in the original documents. The attempted format situates the more or less purely rhetorical language - if it is used - at the beginning of the listed items, and then follows these with statements that relate to the domains of occupational, intellectual, social, cultural and personal value orientations or preoccupations.

While listings such as the following frequently boggle rather than inform the mind, they can - if sufficiently attended to - expose consistent themes which warrant special consideration. The statements in the listings below, for example, reveal:

1. An affirmation of the significance of education for future economic survival and prosperity for both individuals and their own society.
2. An affirmation of the importance of a balanced education which embraces intellectual, social, cultural, and physical goals, as well as occupational.
3. An affirmation of the importance of education for the development of citizens imbued with personal moral and social values.
4. An affirmation of a logic which views the development of personal self-esteem, self-confidence, and a love of learning, as proceeding from educational achievements and a learned process of succeeding.

Additionally, and seemingly more pronounced in some documents, was the juxtapositioning of economic and social goals in the statements of purpose. Also, the linkage between school and work often emerged as a prominent theme, as did the purpose of education being a preparation for the "marketplace" of both ideas and competitive work skills. Still another theme was the social activist insistence that one of education's purposes is to develop the ability to change the world and its traditional structures and relationships for the betterment of society.

National Commission on Education Report (1)  
The purpose of education is:

- Preparing learners for the opportunities, responsibilities, and experiences of life.
- Enabling learners to acquire the knowledge and practical skills on which survival and hopes for the future depend, turning knowledge achievements into successful products through applied intelligence.
- Promoting the spiritual, moral, cultural, mental, and physical development of learners and of society.
- Transmitting knowledge and empowering, interpreting and passing on the values of society and stimulating people to think for themselves and to change the world around them.
- Providing the opportunity to learn about society and how to contribute to it.
- Fostering a spirit of inquiry about the world, a desire to think for oneself, to be critical, and to be self-critical.
- Fostering a pattern of success through the development of capability, confidence,



and self-esteem, so that learners acquire the process of succeeding and going on to succeed.

Jerry Paquette, “Major Trends in Recent Educational Policy” (2)

The purpose of education is said to be:

- Fostering the attainment of personal and social prosperity.
- Promoting learning skills, habits, and attitudes geared to economic productivity in the high-tech, value-added workplace, thereby meeting market needs and supporting the economy.
- Developing moral and civic values, social responsibility, the will and ability to live in harmony with others and the environment, and the ability to participate knowledgeably in the democratic process.

Hans-Gunter Rolff, “The Roles of Schools in Shaping our Social Future” (5)

The purpose of education is:

- Contributing to the creation of a culture of mutual help and fellowship.
- Shaping a humane and social future by transmitting the productive knowledge of the natural and human sciences.
- Stimulating independent learning in the development of self-image, self-confidence, competence, and judgment.

Middlesex Co. Board of Education, “Purpose and Direction of Our School System” (6)

The purpose of education is:

- Developing self-directed, independent learners and problem-solvers who have generic skills on how to learn, how to apply knowledge, and how to work cooperatively with others.
- Developing values related to personal, ethical, and religious beliefs, and the common welfare of society.\*
- Developing a feeling of self-worth and skills that contribute to self-reliance.\*
- Developing resourcefulness, adaptability, and creativity.\*
- Fostering responsiveness to learning.\*

\* Quoting from the “Goals of Education”, OSIS, 1984.

Bela Benathy, “Designing Schools for a Global Village” (8)

The purpose of education is:

- Performing as an instrument of culture and knowledge transformation.

Province of British Columbia, Improving the Quality of Education,“ (11)

The purpose of education is:

- Ensuring that learners have a prosperous and fulfilled future.
- Preparing learners for the challenge they will meet as adults and teaching them what is relevant for today’s world.
- Preparing learners for entering the workforce or continuing their education.
- Providing for the intellectual development of learners through a common core of academic subjects (English, Math, Science, Social Studies, Fine Arts, Practical Arts).
- Preparing learners to become literate, informed, and responsible citizens, by

- ensuring the attainment of the essential primary skills (reading, writing, math) and essential secondary skills (problem solving and computer capability).
- Providing for the development of personal and social responsibility through tools required by responsible, educated citizens who can contribute to their communities.
- Helping learners to reach their full potential in intellectual, creative, and physical pursuits.
- Ensuring that learners acquire the skills, knowledge, and love of learning demanded by today's world.

Ontario Ministry of Education, "Curriculum Management Guide" (12)  
The purpose of education is:

- Fostering the development and well-being of the learner.
- Reflecting and shaping the values of society.

UNESCO, International Commission on Education, "Principles" (19)  
The purpose of education is:

- Fostering the creation, advancement, and dissemination of knowledge and science.

Andy Hargreaves, "Postmodernity and the Prospects for Educational Change" (21)  
The purpose of education is said to be:

- Developing problem-solving skills, higher-order thinking skills, teamwork skills, risk-taking skills, as well as cultural, political, and occupational skills.
- The role of education is to build a prosperous society and a responsible society (27).
- The broad purpose of education includes improving the economic state of the individual and society as a whole, and serving the greater good of society (28).
- There has been a shift in emphasis from developing the potential of the individual in society to achieving the economic and social goals of society, with the development of learning seen as essential for the achievement of economic growth and shared personal aspirations (29).
- Only economic prosperity will allow Canadians to exercise their social responsibility (31).
- Learned skills enable people to function effectively and responsibly in both the social and economic systems (35).

A. Hargreaves and I. Goodson, "Schools for the Future: A Canadian Vision" (24)  
The purpose of education is said to include:

- Protecting, promoting and validating the importance of language, debate, and critical analysis as the stuff of an effective moral culture.
- Preparing for leisure and constructive recreation, particularly for those who will have less access to opportunities for meaningful work.
- Processing of inquiry, analysis, information-gathering and other aspects of learning-how-to-learn as central to secondary schools of the future.

Manley-Casimir, "Education in Canada: Seeking a Common Purpose" (25)  
The purpose of education is said to include:

- Contributing to the development of a sense of pride and identity in country.

- Contributing to the development of a strong economy and technologically sophisticated and competitive workforce.
- Contributing to the development of social institutions which reflect core values, for at root education - its design and practice - is a cultural enterprise and should be concerned with normative issues of worth, civic virtue, personal responsibility, economic justice, independence, health, and spiritual development in order that the individual might achieve a good life.

Ontario Ministry of Education, “Strategic Directions” (27)

The purpose of education includes:

- Enabling all learners - children, youth, and adults - to develop their full potential, both as individuals and as contributing members of their community.
- Ensuring that those who participate in education (learners, teachers, administrators, and trustees) perform to the best of their ability to help build a prosperous and responsible society.
- Balancing the development of skills, knowledge, and creativity.
- Transmitting essential values from generation to generation.
- Helping to shape the changes that are transferring our world with a commitment to life long learning.

Summary of Government Reports, “Vision, Direction, Goals of Education” (28)

The purpose of education includes:

- Serving the greater good of society.
- Developing the potential of the individual student.
- Improving the economic state of the individual and society as a whole.

Daniel Keating, “Educating for a Learning Society,” (29)

The purpose of education is said to include:

- Linking learning via a variety of pathways to meaningful work.

Federation of Women’s Teachers’ Associations, Response to the Commission (30)

The purpose of education includes:

- Equipping students for a complex and changing world.
- Preparing students for future competitive challenges.

Dave Cooke, “The Importance of the Arts in Education” (32)

The purpose of education includes:

- Developing creative thinking and problem-solving abilities.

Ken Robinson, “The Neglect of the Arts in Schools,” (33)

The purpose of education is said to include:

- Providing a general education on which other forms of specialized training and education can subsequently be based.

Premier’s Council Report, People and Skills in the New Global Economy”, (35)

The purpose of education includes:

- Ensuring that quality, relevance, and opportunity underlie every student’s educational experience.



- Providing the foundation skills (motor, math, writing, reading, communicating, and ability to learn) that constitute a platform for life long learning, generic rather than job-specific, and grounded in a solid comprehensive general education.
- Developing broad thinking skills and knowledge base by which further learning and more sophisticated applications of learning can be advanced.
- Developing a better match between life skills and learning patterns of the school and the workplace.
- Maintaining and enhancing competitiveness in the new global economy.
- Providing opportunities for the pursuit of life long learning.

Keith Newton et al, Education and Training in Canada (39)

The purpose of education is said to include:

- Preparing young people for adult life.
- Providing a clear pathway after school to work.
- Graduating young people with high levels of diversified skills which the nation can use for the benefit of all.
- Developing high levels of labour/technological skills which are necessary to secure productivity, growth, and improvements in living standards.

Judith Maxwell, “Forward”, Education and Training in Canada (40)

The purpose of education is said to include:

- Playing an essential role in the social and economic spheres of Canadian life.
- Maintaining the competitiveness of the Canadian economy in an increasingly globalized trading environment.
- Strengthening the Canadian economy’s ability to adapt to changes in the industrial structure and in technology.
- Improving the distribution of income.

George Radwanski, Ontario Study of the Relevance of Education (42)

The purpose of education is said to include:

- Furthering man’s unending search for truth and providing opportunities to pursue with zest what he can appreciate for its interest and value in the vibrant world of today (quoted from another source).
- Ensuring to the maximum extent possible that every child will emerge from the system knowing that which society has decided he or she should know, and possessing those skills that society has decided he or she should possess.
- Bringing every individual child into possession of the specific knowledge and skills required of every young adult coming into our society.
- Preparing young people for the requirements not only of the workplace but also of the marketplace of ideas.
- Preparing young people for effective and satisfying participation both in an increasingly knowledge-intensive economy and in an increasingly complex society.
- Strengthening and maintaining Ontario as a free, compassionate, and truly democratic society.
- Preparing individuals to be mobile, flexible, adaptable, and versatile, with the ability to learn the premium skills of the future (quoted from another source).

Ontario New democrats, Education: General Policy Statement (44)

The purpose of education is said to include:

- Helping individual learners to achieve their potential in physical, intellectual,

- emotional, social, cultural, and moral development.
- Exposing them to disciplines as diverse as technological education, arts education, physical education, computer education, as well as a full range of traditional academic subjects.
- Helping them to acquire practical and artistic skills.
- Providing them with the opportunity to gain familiarity with health education and life skills.
- Helping them to acquire an appreciation of the responsibility of citizenship in a democracy.
- Helping them to acquire an appreciation of the responsibility of citizenship in a society which must take action to preserve the environment for succeeding generations.
- Fostering an understanding of people's ability to effect change in their world.

The New Democrats, "Adult Education" (45)

The purpose of education is said to include:

- Providing people with not just new knowledge, but with a new way of learning and with a sense of empowerment, developing a critical understanding of society, and an awareness of the capacity to change it.

The New Democrats, "A Feminist Agenda for Canadian Education" (48)

The purpose of education is said to include:

- Altering the traditional power structures and relationships in society so as to create new choices as well as greater access to the choices that presently exist in the attainment of equal opportunity.
- Preparing young people for work and citizenship.

The New Democrats, "Literacy and Meaning" (51)

The purpose of education is said to include:

- Offering the hope and expectation that people can change things, that they have the power to make the world a better place.
- Ensuring that all learners are trained in the basic skills that are essential for each individual to function adequately in society, providing them with the tools necessary to alter his or her environment.
- Ensuring that learners learn how to learn.

The New Democrats, "Streaming" (52)

The purpose of education is said to include:

- Establishing an elementary, secondary, and post-secondary system which reflects an integration of technical and intellectual development, and fostering an equal respect for both.

Select Committee on Education, First Report (54)

The purpose of education is said to include:

- Helping individual learners achieve their potential in physical, intellectual, emotional, social, cultural, and moral development.

Ontario Progressive Conservative Caucus, *A Blueprint for Learning in Ontario* (59)  
The purpose of education is said to include:

- Acquiring the skills and knowledge needed to compete for jobs, advance academically, or fulfill personal goals and dreams.
- Teaching children basic skills and preparing them to function effectively in the world of ideas, to think critically and creatively, and to be lifelong learners.
- Providing the opportunity for young people to continue their formal education while learning a skilled trade.
- Providing the skills and knowledge to meet the challenge of today, and the ability to learn new skills and acquire more knowledge throughout their lives in order to meet the challenges of tomorrow.

The Strategic Planning Task Group, *“Towards the Year 2000”* (60)  
The purpose of education is said to include:

- Ensuring the transmission of cultural artefacts (knowledge, skills, habits, customs) from generation to generation thereby helping to give society shape and integrity.

Deborah Meier, *“Why Kids Don’t Want To Be Well Educated”* (61)  
The purpose of education is said to include:

- Developing in students a habit of asking good questions, weighing evidence, and making good judgments.
- Teaching learners how to learn.

David Corson, *“Introduction: Education and Work”* (63)  
The purpose of education is said to include:

- Providing the knowledge and skills needed to meet world class standards which ensure a base of competitiveness for Canada.
- Developing critical and analytical skills that heighten the quality of judgment in applying knowledge.
- Developing a rational autonomy.
- Passing on the values of a community.

Conference Brochure, *“Education and Work”* (65)  
The purpose of education is said to include:

- Helping people individually and collectively to think knowledgeably and critically about the world, and to see the world in new and different ways, and to be able to be activists with respect to their views.
- Developing the skills, values and knowledge needed to participate fully in an intensely competitive global economy.
- Preparing an informed, active, and socially conscious citizenry, productive in all aspects of their lives.

Thomas F. Powers, *“Education for Work”* (66)  
The purpose of education is said to include:

- Teaching the requisite intellectual skills needed for living an effective life.



Avis Glaze, “Life Roles, Life Chances, and Career Education” (67)

The purpose of education is said to include:

- Preparing people for a productive and self-sustaining role in society.

Charlottetown Summit Meeting, “Goals of Education” (71)

The purpose of education is said to include:

- Preparing students for productive employment.
- Preparing students for responsible citizenship.
- Providing a disciplined environment conducive to learning.
- Preparing students for further learning.

Kathryn Barker, “A Vision Statement for Canada’s Education System” (74)

The purpose of education should include:

- Assisting and supporting students to become adept at functioning fully in society.
- Helping students to acquire basic literacy and numeracy skills, including reading, writing, communication, logic and computer skills.
- Assisting students to acquire employability skills, academic skills, personal management skills, creative and initiating skills, analytical and problem-solving skills, interpersonal and teamwork skills.
- Assisting students to acquire skills that make them effective as members of an organization with the ability to present ideas orally and in writing, to work with people, and to shape and direct their own work, their contribution, their career.
- Helping students to acquire practical life and citizenship skills, and the ability to make moral judgments.
- Helping students to acquire an understanding of the nature of humanity and society, its evolutionary and recorded history, as well as their own relationship with the environment and their society.
- Helping students to see their possibilities.
- Helping students to acquire the skill of learning.

Stewart Crysdale et al, “A Productive Generation” (76)

The purpose of education, according to youth, parents and teachers, is said to include:

- Cultivating the complete person.
- Teaching social and applied skills.
- Transmitting values and knowledge.

## 5 PRESENTATIONS and BRIEFS TO THE ROYAL COMMISSION

In addition to a review of books, reports and papers relevant to the mandate of the Royal Commission, a selective and summary review of the presentations and briefs to the Commission was also conducted with a focus particularly on expressions of the purposes and principles of education.

The findings of this latter exercise do not significantly alter what has been presented above. The predominant difference between the literature and the submissions is, generally speaking, the concentration of the latter on very specific special/vested interest concerns, and on specific governance, administrative and operational issues, as well as specific curriculum and instructional viewpoints and/or convictions.

Beneath all the pointed content of the submissions are principles and purposes which are not at major variance with what has already been said. Some themes, nonetheless, assume a special prominence.

Chief among these are:

- **Education Values:** Partnership (especially with parents, but also with community service agencies and business/industry employers).

Excellence (especially through the establishment of high expectations, standards, and demonstrable results).

Equity (especially as regards access to equal educational opportunities and funding by various communities of people).

Accountability (especially as regards governance).

Choice (especially with respect to schools and curricula).

- **Education Purpose:** Development of traditional basic skills (i.e. reading, writing, mathematics, science, history, geography, et al).

Development of new basic skills (i.e. communication, computer, problem-solving, teamwork, critical/analytical thinking, et al).

Provision of co-operative education opportunities (facilitating the pathway to employment as well as higher education).

## 6 SOME GENERAL OBSERVATIONS

Michael Valpy, writing in the *Globe and Mail* (23) on the role of education, asks: “Are we having this debate because Canadian schools are doing a demonstrably worse job than they were 25 years ago? Or are we having it because Canadian parents suddenly have perceived themselves to be in a world where they lack the necessary tools, and have become frightened that (they and their children) could lose out in the competitive global economy?”

Education Vision or Purpose statements can undoubtedly be driven by one of any number of perspectives. They can be influenced strongly by, for example, an economic preoccupation such as an increasingly competitive global economy or, even worse, a spectre of a “jobless society”.

They can also conclude to the possibility that education and learning will again be considered as ends in themselves - *ars artis gratiae* as Jerry Paquette (2) postulates when considering the resource realities likely to constrain the mission of education in the future.

Or again, they can reflect a position that envisages a bold concept of the future Learner as defined in the Ontario Ministry of Education’s 1988 Curriculum Management Guide (12). In that document, the Learner is described as more than a mere processor of information. Rather, he or she is a self-motivated, self-directed problem-solver, deriving a sense of self-worth and confidence from a variety of accomplishments, and guided by values consistent with personal religious-ethical beliefs, cultural traditions, and the common welfare of society. Further, he or she is a methodical thinker, capable of inquiry, analysis, synthesis, and evaluation, as well as a perceptive discoverer,

capable of resourcefulness, intuition, and creativity.

Whatever the formulation of the Vision or Purpose, however, it would seem from the material reviewed, that education's future directions can best be defined by statements which recognize several perspectives as valid and motivating, and which point within each perspective to clear goals that are inspired by a fundamental value system.

The Premier's Council Report on People and Skills in the New Global Economy (35) introduces its section on "Educating for the New Millennium" with a quote from George Bernard Shaw. "What we want to see is the child in pursuit of knowledge and not knowledge in pursuit of the child".

However determined the Council's effort was to uphold "the broader social context of schools", and to insist that "defining the role of the educational system only in terms of the needs of the economy is both unreasonable and unrealistic", the struggle to contain knowledge's pursuit of the child was patently difficult. "Education must develop universal basic skills in literacy, mathematics, and science and to make a better match between life skills and learning patterns of the school and the workplace" (35).

Many of the documents reviewed recognized at least a dual purpose for education, one economically oriented, driven by the perceived need to fuel the global economy with a competitive, technologically skilled workforce of Canadian citizens, and the other socially and culturally oriented, driven by the inherited mission to transmit those moral and political values deemed essential for the preservation of the fabric of a responsible, democratic society.

Manley-Casimir, writing on the search for a common purpose for education in Canada, has expressed concern about what he feels are two major responses to the crisis of the post-industrial society. One is to capitulate to collective uncertainty and let schools be moulded by the market place. The other is to impose new or resurrected cultural and moral certainties through centralized control (24).

Defining the purpose of education as preparing people in some way for the "real world" has, as one would expect, its critics. Northrop Frye, for example, has referred to "the decline, to the point of collapse, of the conception of education as preparing for life...(and) along with this decline of the notion of preparatory education goes the decline of what I might call initiatory education - that is, the aspect of education that has to do with learning the rituals of society" (34).

According to one commentator, a strong theme running through all of Frye's writings is a profound belief that reality is what we choose to make it, and that bowing to the actual is a denial of imagination that is humanity's principal distinction among the animals. Any educational system that is based on actuality instead of imaginative vision will defeat itself in the long run (34).

This same commentator, building on Frye's perspective, goes on to make the observation that education in which the basic principle is pursuit of whatever is going on instead of whatever human beings are capable of, does nothing to enhance the human condition. "It is not productive. It is reductive. The root meaning of the verb to educate is 'to bring up' or 'draw out', but this kind of education holds us down and locks us in" (34).

In a similar vein, Thomas Kierans, President and Chief Executive Officer of the C.D. Howe Institute, has warned that "what must be avoided is a narrowly focussed education that produces graduates with tunnel vision, unenlightened by a broader awareness of the world. This is to prepare students to be the victims of globalism, not to make use of it". "What is required", he says, "is an educational system which is infused with the arts and culture, which stresses our history, traditions, and sense of time and place, which tells us who we are" (37).



Howard Gardner, Professor of Education at the Harvard Graduate School of Education, has emphasized that the arts are often forgotten by policy-makers intent on preparing people for the 21st century workplace. "In trying to strengthen the links between educational and economic goals, they (policy-makers) tend to define the basics which will adequately prepare young people too narrowly. Literacy and numeracy skills, or scientific and technological understandings, are not themselves the best - or only - preparations for work...Young people must be given the opportunity to develop the full complement of forms of human intelligence." "The logical and deductive," he concludes, "lead to certain insights - but the intuitive help us to make the world intelligible in other ways (38).

As noted, above, in the introduction to the section on the purposes of education, a theme which emerged prominently in the reviewed documents, was the linkage of school and work. Statements such as "preparing a clear pathway after school to work" (39), "developing the skills needed in order to compete in a global economy" (55), "preparing students for productive employment" (71), and "assisting students acquire employability skills" (74), point to the increasing prevalence this role has assumed in the thinking of many of the major stakeholders in the educational system, not the least being parents and students themselves.

Some observers believe that big business has launched an all-out campaign to take over the educational system for its own purposes. As evidence of the validity of this concern, John Akers (former Chairman of IBM Corporation) is quoted in the Wall Street Journal as praising, shortly after the Gulf War, the American effort against Iraq, and calling for an equal commitment to rescue the educational system "since business is the primary customer of education" (65).

Others hasten to draw attention to the fact that young people in industrial societies, facing fierce competition in a technological world market, have a tremendous hurdle to surmount in making the transition from school to work. They cite statistics which show that Canada's share in this market is shrinking, that there is a shortage of skilled workers, that unemployment is at its highest levels, that more and more plants are closing down. Students, they argue, see the attainment of full-time employment as a crucial period in their lives, with the entry level determining their fortunes for the rest of their lives (75).

The seriousness of this perspective on the fundamental purposes of education assumes, for some, worrying significance if one succumbs to the purely biological and reductive theory of learning which says it is basically a process of adaptive behaviour, an organism's reaction to an environment with which it must interact in order to survive (60).

Michael Power (The Competitive Advantage) argues that the task for government is to understand the underlying principles of national advantage and transfer them into policy initiatives which gives recognition to the coherence of socio-economic systems; translation: a continuity between education, the labour market, and the performance of the economy. In this regard, several critical strategies have been advanced (39) to assist students in their curriculum choices and occupational orientation:

- the establishment of broad general acceptance by the population of the value and relevance of education within society and the economy.
- the development by the educational system of the capacity to respond to the double diversity of students' aptitudes and preferences and the skill needs of the labour market.

What has been referred to by the Belgian educational researcher Viviane De Land (42) as the perpetual conflict in education of two objectives - the physical, intellectual, social, emotional, and moral development of the individual on the one hand, and the acquisition of knowledge, skills and techniques for instrumental purposes on the other hand - becomes all the more heated (and potentially skewed) when "survival" seems threatened (60) and/or the importance of education in today's world is reduced to matters of dollars and cents (42).

## ATTACHMENT B

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## A FINAL SUMMARY REPORT

### A Learner for All Seasons

When Ontario Minister of Education and Training David Cooke announced the formation of the Royal Commission on Learning almost a year ago, he issued what seemed to be a relatively straightforward challenge to the five Commissioners. Take the public's concerns and expectations and translate them into a concrete plan to guide the province's elementary and secondary school systems into the 21st century .

This mandate included, among other things, the expectation that the Commission would specify what values and principles should inform these systems, and what the public's shared vision was for the education of Ontario's elementary and secondary school students.

Although the challenge to discover and spell out a shared vision on the direction of education for the year 2000 and beyond might have appeared straightforward, the hope of easily finding consensus was short-lived. More of this later, since there was a prior question which seemed to go begging. Namely, was there any agreement on what the essential role of elementary and secondary schools should be as we moved into the next century?

Operationally at least, this role had increasingly expanded over the previous few generations to include many facets of the roles and responsibilities of such social institutions as the family, church, and local neighbourhood. It had gradually assumed, as well, functions which appeared to belong more properly to the health and social services systems. Even, of late, the correctional system.

For the most part this Topsy-like growth, while reactive to a radically and exponentially changing socio-economic environment, was nonetheless principally ordered to the academic purpose of rendering, as far as possible, every student capable physically, emotionally and socially of being a learner.

In 1993, the so-called 40% factor emerged somewhat dramatically and with a lot of media hype as a major issue affecting the success of educational outcomes, especially those that many felt were directly related to competitive ability in the "real world" of the global economy. Despite the fact that heat more than light characterized much of the debate, the role and responsibility of the educational system in addressing an array of unmet human needs (food, life skills, emotional security, self-esteem, physical safety et al) was at least raised as an important question which deserved a better answer than simply, "Let the schools and teachers do it".

That it did deserve a better answer was recognized not only by those addressing the Commission over the past year in their briefs and presentations, but also by many others who have directly or indirectly registered their concern for some time about the elasticity of the education system's mandate.

Referring to the very complex nature of the expectations placed on the system, key stakeholders have bluntly asked whether it is possible for schools to meet all the expectations placed upon them by the community, particularly in those areas that were formerly the domains of other social institutions; whether the community expectations are realistic; and whether education has to respond to every need. The Chairperson of a large Board of Education in the province has recently responded quite succinctly as a matter of fact: "We can only do so much," he said, "we cannot save them all".

Some analysts of what might be called the "Mission Issue" have accused the education sector of behaving like a closed system. It has assumed, they charge, that it is in control of its internal environment, and has consequently become seriously disconnected from the major forces, both social and economic, which are driving the province of Ontario.

Others who appear less condemnatory in their critique comment that, if it is true that education is falling to bits, it doesn't make sense to hold just the schools accountable; that a wider segment of society has to assume responsibility. And it is chiefly from this perspective that a compelling consensus is clearly developing in the community. As the President of the Learning Partnership has had occasion to observe recently, "Education has become everyone's business...we don't have the luxury of solitudes anymore".

Politicians seem to be of the same frame of mind. The challenge for the education system now, one provincial political party has argued, is to assure that the opportunity to achieve knowledge, understanding and skills is within the reach of all children. And to accomplish this, it says, education must be woven into the fabric of the province's overall strategic purposes and integrated into a plan for economic renewal and coordination with community services.

The need for coordination with other sectors of society has also been advocated by the Federal Council on Health, Well-Being, and Social Justice. Alluding to the critical transitional stages of childhood and adolescence, the Council stressed the need children have to be ready to learn and socialize by the time they get to Grade 1, and the need adolescents have for a supportive environment and a sense of belonging in the wider community in order to enhance their ability to participate effectively. Schools, parents and the community must collaborate, the Council said. It also said that parents must hold the broader community to account for the quality and effectiveness of the supports provided.

It should be noted here, that in the documentation review for this report, the value of collaboration and the principle of partnership were among the most frequently mentioned concepts.

Of more significance perhaps, were the number of references made to society's (in general) and key stakeholders' (in particular) role in the responsibility for educational outcomes. The key stakeholders which were identified included those within the present elementary and secondary school systems (e.g. trustees, administrators, teachers, and students); those most immediately concerned with the results of the educational system (e.g. parents, ratepayers, post-secondary institutions, employers, unions); those chiefly accountable for the provision of supportive personal services (e.g. child care, health, and social service agencies); and those most capable of providing supportive technical services (e.g. communications and computer facilities, science laboratories, libraries).

There is increasingly vigorous insistence on the need for the development of a partnership in the responsibility for effecting a successful elementary and secondary school system. Most notably, this insistence comes from parents, students, and the corporate community, although significant sectors of the human service system are not in disagreement.

This mounting pressure is driven in good measure, and some would say with good cause, by fear. Parents, prompted by reports of some international test results, are afraid that their children will not be able to secure a successful future for themselves in the competitive environment of the next century. Students are "spooked" by predictions of a jobless society and the lessening likelihood of gaining entrance to the country's workforce whatever their education, however long they stay in school. Leaders of business and industry express serious concern that education, now considered the paramount ingredient for success in the world economy, is not producing the "right stuff".

So strong, in fact, is the concern of some among the corporate elite and those who speak on their behalf, that big business is being called upon, in some quarters, for a commitment from its membership to rescue education from itself, to lead the process of school reform since the system plainly cannot do it on its own.

This fear of being future's victim rather than its creator and/or saviour poses the threat of a flight to a tunnel vision regarding the fundamental purpose of elementary and secondary schooling. Without denying a potential plethora and even hierarchy of desired outcomes - intellectual, emotional, social,



cultural, spiritual, physical, et al - for some, the educational system is perceived to be important principally for future economic survival, providing a clear pathway from school to work, and assuring prosperity for both individuals and society. For others, the essence of education is rooted in the formation of citizens imbued with personal moral and social conscience, and the transmission from generation to generation of values which support and maintain the present political and cultural belief system. For still others, the mission of education is the development of the ability to change the world and its traditional structures and relationships for the betterment of society.

More frequently than not, these affirmations of what the elementary and secondary school system should be achieving fail to distinguish purposes of education that pertain differentially along a continuum of human development. In either their enthusiasm for the “Big Bang” approach to educational reform which they believe they see the business community advocating, or their dismay at the potential surrendering of the principles and curriculum of a liberal education, or their commitment to the creation of an equitable society, various interest groups seem to lose sight of what the fostering and nourishment of learning is all about, especially in its beginning years.

These seemingly dichotomous perspectives on the fundamental purpose of education, perspectives which tend to grab the headlines and the town hall floors, are inclined to distract analysis from seeing the persistent themes, and to detour the mind away from where consensus lies or is building.

First of all, as noted above, the readings undertaken for this documentation review strongly suggested - whatever the motive or rationale - that an education covenant should be developed that provides the formal framework for a variety of absolutely essential partnerships, each with clearly specified responsibilities, and each with clearly recognized accountabilities that are ordered to the respective domains of expertise and concern of the primary stakeholders. (And in this regard it should not be forgotten that a parent cannot renounce his or her primary right and responsibility to educate his or her children. This right may be wholly or partially delegated, but the ultimate responsibility, the right itself, is inalienable. The responsibility falls back on the parent if the education provided by those to whom the function is delegated inadequately fulfils the duty.)

The elementary and secondary school systems themselves should be responsible for, and accountable for, the performance of principally one role: development of the skill of learning and the skill of applying what has been learned principally through the teaching of a core foundational curriculum, the utilization of instructional methods and techniques which best enhance the development of learning and application skills, and the provision of a challenging yet supportive learning environment. They should not have the lead role in making children ready to learn, nor in addressing their social and emotional problems where these exist, nor in preparing them for specific occupational positions, nor in assuring the physical safety of the learning environment. These functions should be left chiefly to others in the defined partnership network.

Elementary and secondary schools should do what their staff have been hopefully educated to do first of all and best of all - educate. Stimulate the mind's natural pursuit of knowledge, meaning, and truth. Nourish it in the variety of ways that call upon its own energy, capability, and innate desire to go on learning. The means used, including the curriculum, the instructional methodologies and techniques, and the learning environment, should be determined in the light of these goals, as well as the values around which there is expressed consensus (e.g. universality, equality, equity, individuality, personal and social responsibility).

Secondly, there is strong or strengthening consensus around the belief that there should be a core curriculum, and what the content of this core curriculum should be. Even business, accused as it often is (sometimes falsely) of leading the charge to make the products of early education the perfectly honed tools for the 21st century workplace, generally argues for the consensus position.

The President of the Sun Life Assurance Company of Canada, for example, in a speech last year to the



Rotary Club of Toronto stressed that, “a consensus is growing that the key accountability of schools is ensuring that students learn the basic building blocks of education - the traditional three Rs - and that they learn how to learn, to think, to work in teams, and to problem solve”.

In a similar vein, the manager of advanced technical training for the Chrysler Corporation (who has, by the way, an academic background in English and History) in a recent speech at a professional development day of the Peel Board of Education said, that the employee of the future should have writing and spoken language skills, a solid training in math, computer literacy, group skills, and problem-solving skills. What companies want, he emphasized, were employees with a well-rounded education. It was up to business and industry to provide the specialized training.

The documentation review provided evidence that, as far as a core curriculum was concerned, a two-fold band of consensus existed. The content items in one band were, with a single exception, quite familiar: English (literacy and communication), Mathematics, Science, History, Geography, and Computer Technology (literacy). The skill items in the other band, however, reflected both a traditional and a future orientation: learning, inquiry, analysis, synthesis, critical thinking, team work, problem-solving, conflict resolution, stress management, and application of learning. In addition, there was consensus with respect to desirable learned traits such as flexibility, adaptability, creativity, cooperativeness, self-direction, and independent resourcefulness.

A “vision statement” for Ontario’s elementary and secondary schools is expected. Analysts of the province’s educational system argue that Ontario is suffering from a profound uncertainty of purpose, and that it is imperative that the Commission create a vision and direction which represents a system-wide transformation. Parents are urging consideration of a vision for the school system at both provincial and local levels, arguing for - whether they realize it or not - the operational principle of subsidiarity. Business says it wants an educational system in place that understands its mission, that has a clear idea of what the real purpose of education is.

Most interestingly, the British National Commission on Education, in the introduction to its final report, made the point of saying that its role was proactive as well as reactive. It saw its mandate not being confined to dealing only with those things upon which there was consensus, but rather being also “to promote a consensus about the needs of the future, and to bring about the convergence of views which at present diverge”.

This documentation review clearly indicated, either directly or through inference, that there is, and for some time has been, a growing consensus on a number of basic issues pertinent to a vision statement for the province’s elementary and secondary school systems. Yet, as several policy analysts have observed, there is so little evidence of transformational change when so much of what is being advanced is conventional wisdom now.

This is a question that should not be ignored when, in providing the global context for its vision, the Commission addresses the barriers and constraints to the vision’s implementation.

From a personal perspective, and in direct reference to the need to define the role of education and the roles of its supplementary and complementary partners, this must be said. The province for decades has made many efforts at government ministry levels to create service systems which would be more holistic. The children’s services system, the seniors’ service system, the mental health system, and the long-term care health system come to mind in this regard.

The rhetoric accompanying these efforts almost always refers to simplifying the system chiefly for the benefit of the client, making the system more accessible, more comprehensive, more integrated or coordinated, less fragmented, more effective and - never to be ignored especially in these times, more efficient and less costly.

Unfortunately, most of these efforts have both floundered and foundered, sooner or later. The causes for their collapse are doubtless legion. But very often at the centre of the failure is the folly of various bureaucracies - public, private, and voluntary - to let go of the authority, power, position, privilege, and ideology of their separate fiefdoms for the sake of the common good.

This point is mentioned, in concluding, for one reason only. If the vision for education does in fact entail a new arrangement of responsibility and accountability for the successful performance of the elementary and secondary school systems, consensus around its implementation will, in the language of the British Royal Commission, need to be developed. Or in the language of one of the briefs to the Ontario Royal Commission, the Commission will have to be “bold in advocating mechanisms to oversee the implementation of its recommendations”.

It is hoped that the Royal Commission on Learning will formulate a vision statement as an essential ingredient of its report. Further, it is hoped that - besides a description of the current and anticipated global context for its recommendations, and the values which it believes Ontario citizens want reflected in its recommendations - this vision statement will include a precise definition of the mission of elementary and secondary schools, an identification of the essential partners and their role in the achievement of this mission, and a specification of the goals - in measurable or demonstrable terms - which it believes should be attained.

Finally, one would also hope that among the specified goals there would be an item which addressed the need for the implementation of an “Incentives Strategy”. This strategy should embrace a range of stakeholders, but most importantly students, teachers, schools, councils, and boards. As well, a most important partner in this strategy should be the media.

This recommendation flows from years of having to watch human service systems being criticized or praised with scarcely a word of how organizational effectiveness and efficiency, and individual self-esteem and confidence would have been enhanced if successful performance had been recognized in a significant and public way.

The recommendation is also prompted by a Letter to the Editor of the Globe and Mail this month (March '93) from the President of Northern Telecom Canada Ltd. He observed that comments on a recent story in that paper underlined the dilemma that seems to exist in both the media and in the public at large to recognize and acknowledge the fact that Canada's good students today are bright and articulate, and can hold their own with the best students anywhere in the world. He went on to say that behind those students are committed and dedicated teachers who have recognized potential and have given time and effort to nurture students and enhance the skills of potential “pole vaulters”.

In sum, the thematic messages provided by the documents reviewed for this report on Vision, Purpose, Values and Principles are the following:

- Education, in general, is the responsibility of society and not just the formal institutions of teaching and learning, nor the traditionally designated government ministries and bureaucracies.
- The role of the elementary and secondary school systems should be primarily, if not exclusively, focussed on the creation of a challenging and supportive learning environment, and the development of foundational knowledge and skills including, most especially, the skill of learning.
- Formal partnerships with major stakeholders should be developed which would be responsible and accountable for those domains of personal, social, health, vocational, and occupational supports that are required to both supplement and complement the elementary and secondary school systems.

- The philosophical base of the school systems should include the values of:
  - Universality - realizing at the same time that the entitlement to education embraces both the rights and obligations of the student.
  - Equality of Opportunity and Equity of Outcome - recognizing that the definition of equity refers to the opportunity for individuals to reach their full potential relative or proportionate to success rates in similar groups.
  - Flexibility and Responsiveness to individual needs, enabling the achievement of surpassing excellence, and supporting special needs.
  - Collaboration - made operational through formal partnerships with the major stakeholders.
  - Accountability - made operational, to the greatest extent possible, through implementation of the principle of subsidiarity.
  
- The Commission should develop a vision statement which spells out the role and purpose of the elementary and secondary school systems, the supplementary and complementary roles of its essential partners, the value base and operational principles upon which the vision is founded, and the specific goals that should be realized in the attainment of the vision.
  
- The Commission should see itself shaping as well as reflecting consensus.





# **Indicators of Reading Progress**

**Andrew Biemiller**

May 22, 1994





**Biemiller, Andrew.**

***Indicators of Reading Progress, May 22, 1994***

***(Les indicateurs des progrès en lecture), 22 mai 1994.***

The author discusses the various indicators used to measure children's reading progress and the implications of the ways in which they are scored: Canadian Test of Basic Skills, Cloze technique, sentence level skills, word level skills. He warns teachers of the necessity of checking whether low scores on a reading-based vocabulary test are the result of decoding difficulties or of vocabulary difficulties. Biemiller also identifies the four main stages children go through for the decoding of unfamiliar print words as they develop into efficient readers. The factors that most influence a child's progression through these stages are: (1) the degree to which words being learned are visually similar, leading the reader to require more attention to the print; (2) the degree to which instruction directly addresses the print-speech relationship (decoding); (3) total reading practice; and (4) the child's level of cognitive development

\* \* \* \* \*

L'auteur évoque les divers indicateurs employés pour mesurer les progrès accomplis par les élèves dans l'apprentissage de la lecture, et les conséquences qu'entraînent les méthodes utilisées pour la notation des tests : Test canadien d'aptitudes de base, méthode Cloze, tests de lecture de phrases, tests de lecture de mots. Il avertit les enseignantes et les enseignants que les scores faibles dans les tests de lecture de vocabulaire peuvent être dus tout autant à des difficultés de décodage qu'à des lacunes de vocabulaire. L'auteur cerne également les quatre grandes étapes que franchit l'enfant dans sa progression vers la lecture courante. Ces étapes sont définies par la facilité de décodage des mots écrits nouveaux. Les facteurs qui influencent le plus cette progression sont : (1) le degré de ressemblance visuelle entre les mots appris, c'est-à-dire le degré auquel l'apprenante ou l'apprenant est amené à porter au texte une attention plus soutenue; (2) le degré auquel l'instruction aborde directement le rapport texte-parole (décodage); (3) la pratique de la lecture totale; et (4) le niveau de développement cognitif de l'enfant.



## Indicators of Reading Progress

Becoming more effective in any area of skill means two things: (1) becoming able to do more complicated things (e.g., add larger numbers, read longer and less familiar words, read more complex sentences) and (2) becoming able to *apply* the skill effectively in a variety of situations which call for it.

In the case of language skills, increasing literacy not only involves doing more complicated tasks, but also learning to use *more* words well in speech and in print. For example, *average* first graders “know” about 3000 spoken “basic” or “root” words, while twelfth grade adolescents know 7,000-12,000 such words.<sup>1</sup> As always, there is much individual variation around these averages. Obviously, children whose primary language is not English will usually know fewer English words, as will many children from disadvantaged backgrounds.

I am going to group skills acquired in learning to read into three strands: text-level skills; sentence-level skills; and word-level skills.<sup>2</sup> The competencies of ultimate interest are *text-level*: the ability to understand increasingly complex, meaningful text in print and speech. However, growth in text-level skills is almost invariably accompanied by growth in sentence and word level skills. In *some* cases, instruction may more effectively be focussed at these levels, leaving the learner to *apply* word and sentence level skills to the comprehension of text. Other skills (e.g., understanding the organization of story plots or using tables of contents) must occur at text level. These *presuppose* competence with the words and sentences involved.

### TEXT-LEVEL SKILLS

Fundamentally, learning to read means becoming able to “comprehend” more complex language. In both speech and print, children initially comprehend single words and very short phrases. The length and complexity of comprehensible *speech* units increases to short stories (three or four short sentences or phrases) by age 3 or 4, somewhat more complex stories by ages 4 or 5, and multi-character multi-theme narratives and expositions by middle childhood. The length and complexity of comprehensible *print* units follow a similar course, but at later ages. Some single words may be learned early, before formal schooling in reading (e.g., names, a few other words).<sup>3</sup> Early in reading instruction, short sentences with words known in print are read and understood. By middle childhood, however, the majority of children become able to read multi-character, multi-theme narratives, although often with more restricted vocabulary than they can listen to.<sup>4</sup> Note that the complexity of language that can be comprehended *in print* is generally lower than what can be comprehended *in speech* until somewhere near the end of elementary school or later.

In the remainder of this paper, I am going to limit discussion to reading - getting meaning from print and related subskills.

**Describing Growth in Reading Comprehension.** Traditional approaches to assessing comprehension involve providing children with short texts of varying complexity, and asking them questions about the text. Multiple choice responses are usually used with “standardized” (i.e., normed) tests. More advanced levels involve both more complex texts (with fewer relatively common words and longer sentences) and questions involving higher levels of inference.

For example, in the Canadian Test of Basic Skills (CTBS) reading comprehension test<sup>5</sup>, children are typically confronted with a number of passages to read and four to ten questions to be answered about each passage. There is more variation in the difficulty of the *questions* about each passage than there is in the *average* difficulty of questions on different *passages*. Most children are able to answer the easiest questions about most of the passages. (This implies that they were able



to read the passage.) A majority of children are unable to answer the hardest questions about most passages. Figures 1A, 1B, and 1C illustrate the range of question difficulty on the 1982 CTBS reading comprehension test for grades three, five, and seven. In these graphs, the vertical lines indicate the range from the easiest to hardest questions, and the tick mark indicates the average percentage of correct responses for each passage. (Passage numbers reflect order of accuracy on the easiest question, *not* the order of presentation in the test.)

Some passages on the CTBS comprehension test are given to children in two or three grades. (In the preceding figures, 2 passages overlap between third and fifth grades, and between fifth and seventh grades.) On average, older children are able to answer more questions on the *same* passage than younger children, showing roughly ten percent improvement per year. There is little change in the *relative* difficulty of the questions for the children. For example, those questions which are most difficult for third grade children are also most difficult for fifth grade children.

A child who is performing at “high level” on a reading comprehension test is successfully reading more complex passages and answering more difficult questions than lower performing children. However, because language development involves the acquisition of a large number of specific words, we cannot pick any single passage as representative of performance. We cannot, for example, state that “fifth grade performance involves being able to read passage 11 and answer 55% of questions.” We can only use a number of passages and a number of questions to estimate the vocabulary level and processing strategies of an individual.

Children at the 10th percentile in grades three through eight were correct on about 34% of questions across all passages at their grade level on the 1982 CTBS Reading Comprehension test. At the 50th percentile, children were correct on about 62 percent of questions. Children in the 90th percentile got about 87 percent of questions correct. The main point is that there are very substantial differences between children in the same grades.

What is the difference between more and less difficult questions? There is no precise answer to this. Difficulty is determined by (1) *the nature of the question* (calling for a simple, factual response versus an inference which goes beyond the information given); (2) *the alternatives supplied* in a multiple choice format; and (3) *vocabulary difficulty*. Table 1 shows sample questions which are easy (80-90% correct at the specified grade level. Where possible, data on the difficulty of the item for younger or older children is also given.

Note that these “easy” questions, passed by 80 percent or more of children at the specified grade level, require quite a bit of inference by the upper grades, and are, of course, more difficult for younger children.

Now consider now “difficult” items, passed by 40-50% of children at specified grade levels as shown in Table 2.

The second group of questions more often inquire about causes, summaries, reasons, etc. However, much of the greater difficulty of these questions has to do with *inference* — with how overtly the question is answered in the text, and how closely the supplied alternatives match the details in the text.<sup>6</sup>

**“Cloze” Procedures and Assessing Comprehension.** An alternative approach to assessing student “comprehension” or ability to process prose is the Cloze technique.<sup>7</sup> The cloze technique, widely used in research on reading comprehension and text comprehensibility, usually involves deleting every tenth word from a text and having readers supply the words. When readers can supply the exact word for about 40% of deletions, they appear to be comprehending the passage reasonably well, based on their ability to answer about 75% of comprehension questions.<sup>8,9</sup> There

is some agreement among researchers that cloze techniques are superior to traditional comprehension tests for assessing reading comprehension.<sup>10</sup>

**Describing Increases in the Complexity of Text.** Both standard reading comprehension tests and cloze tests provide evidence that children became able to deal with increasingly complex text. There are passages that older and more skilled children can read and comprehend while younger and less skilled children cannot. However, comprehension tests do not give us an explicit description of *what changes* in texts that older/skilled children can handle but which younger/less skilled children cannot.

The ways in which we can describe text complexity are almost as many as the number of English and Linguistics professors! A wide range of measures have been used to characterize the comprehensibility of text, including the relationships between ideas, inference load, writing plans, and textual coherence. However, much data indicates that assessing vocabulary or *semantic load* (indexed by the number of words unfamiliar to fourth grade children) and *syntactic complexity* (indexed by sentence length) is sufficient to determine the “readability” of a passage, or grade level at which average children could be expected to read and comprehend the passage.<sup>11</sup> Somewhat harder vocabulary can be tolerated in passages with shorter sentences. Figure 2 shows how the percentage of “unfamiliar words” (words *not* known by most fourth graders) increases in passages that can be read successfully by *average* children at various grade levels as described by the revised Dale-Chall readability formula. Appendix A contains illustrative passages graded for readability using the revised Dale-Chall formula from first to twelfth grade levels.

The correlation between passages ordered on the basis of mean cloze scores by grade and Dale-Chall readability scores was .90 or about 80% of the variance.<sup>12</sup> Thus, the semantic and syntactic factors used in this readability measure identified passages which could be read and understood by average children at particular grade levels.

Similar findings hold for other readability measures (which also use indices of semantic load and syntactic complexity), although those using word length to assess semantic load appear to be less precise. For example, the average Flesch-Kincaid readability score for the CTBS third grade passages described in Figure 1A is 3.7, compared to 4.4 for the grade 5 passages in Figure 1B and 7.1 for the grade 7 passages in Figure 1C.

## SENTENCE LEVEL SKILLS

We have seen that one factor in the comprehensibility of text is determined by sentence complexity (indexed by number of words).<sup>13</sup> While it seems likely that coherence and other “text-level” variables (variables involving more than one sentence) must play a role in true readability, they have not to date been found to improve predictions of readability to a substantial degree.<sup>14</sup>

I have not found research which explores growth in the syntactic complexity of sentences which children can *comprehend*. There is a substantial volume of work on growth in the complexity of sentences children *generate*. Walter Loban’s *Language Development* is illustrative of this work. Loban shows average sentence (“communication unit”) length growing from 7 to 10 words between first and sixth grade and to 12 words by grade 12.<sup>15</sup> (This based on sampling in formal conversations.) We can reasonably assume that children can *comprehend* more complex sentences than they produce. Loban also examined sentence “complexity” as indicated by the presence of dependent clauses. Less than 20% of sentences produced by first grade children had dependent clauses, while 40% of sentences produced by sixth graders and 60% produced by twelfth grade children had such clauses.

In short, children can deal with somewhat longer and more syntactically complex sentences as they get older. However, changes in vocabulary are probably more crucial.

I have not found evidence on when the print aspects of sentences (e.g., use of capitals,



periods, question marks, exclamation marks, commas) become important. (Findings would involve success in reading with punctuation present versus absent.) Experience suggests that most children use some punctuation in writing by third or fourth grade. Standardized test norms for punctuation assess whether children can recognize punctuation errors. This is a useful skill for editing, but does not indicate the degree to which children use punctuation and other aspects of syntax to facilitate reading.

## WORD LEVEL SKILLS

The data is clear that vocabulary plays a large role in determining what can be read and understood. Actually, “vocabulary” operates in two ways - *semantic* (Does the child *understand* the word in the present usage?) and *word-identification* (can the child *read* the word in print?). These two aspects of vocabulary are associated to some extent. Children with larger vocabularies often have read more and can identify more words in print. However, children with reading problems may have much larger speech vocabularies than their print vocabularies. Conversely, children who have mastered the print/speech code but lack extensive speech vocabularies can “identify” words but have no meaning for them (e.g., many ESL students plus some disadvantaged English-speaking students). Less familiar words are likely to present both vocabulary and decoding problems.

Test data that focusses on whether words can be read orally (e.g., the Wide Range Achievement Test - Reading scale) do not establish whether the word is understood. Conversely, tests which require reading as part of an assessment of vocabulary (e.g., the CTBS Vocabulary scale) simultaneously assess both decoding skill and knowledge of vocabulary. However, poor reading skills may mask a large vocabulary. It is important for teachers to check whether low scores on a reading-based vocabulary test (e.g. CTBS Vocabulary) are the result of *decoding* difficulties or *vocabulary* difficulties. This could be done by presenting a few missed items orally.

**Growth of Decoding Skill.** Marsh and his colleagues have summarized much of the literature on word identification, proposed a rough “stage theory” of decoding development, and tested this theory.<sup>16</sup> They suggest four main stages for the decoding of unfamiliar print words:

Stage 1: “*Whole Word*” Identification or “Linguistic Guessing”. The child associates a whole visual word pattern with a speech word. There is no analysis of parts of the word, and no relationship between the print word and how it is spoken. The print word **glad** may be as easily associated with the speech response “happy” as with “glad”. (In fact, such “semantic” substitutions are not uncommon at this stage. They may be the result of “identifying” the word on the basis of prior context, or of associating “meanings” with print rather than specific spoken words with print.) Typically, this stage begins and ends in grade one, and the earlier it ends, the more rapid the child’s progress in reading (Biemiller, 1970).

Stage 2: *Use of Graphic Similarity and Context* or “Discrimination Net Learning”. The child attends to visual features needed to discriminate one print word from another (e.g., **cats, dogs**). On encountering **cime** (a pseudoword), the child is likely to read “cats” - but not “dogs”. When context is included, contextual constraints are also used to restrict responses. However, virtually all errors prove to be words the child has previously been taught in reading (See Biemiller, 1970; 1977-78). This stage is normally seen in middle to late grade one, and among older children experiencing reading difficulties. Instructional methods can speed progress through this stage by using similar words (requiring more careful attention to print) and stressing print-speech relationships (Barr, 1974-75).

Stage 3: *Decoding Simple Words* or “Sequential Decoding”. The child uses the sequence of letters in a word to identify it - either attending more carefully to all the letters (to avoid



confusing the word with other similar words, e.g., **card** vs. **cord**), or using simple one-to-one letter-sound rules. At this point the child can typically read 3 letter pseudowords using decoding skills (e.g., **bep**, **ris**) but not more complex pseudowords (e.g., **bleppen**, **cime**). Many children reach Stage 3 by second grade. However, seriously “reading disabled” children in sixth or seventh grade showed little transition into Stage 3 decoding. Conversely, reading programs with a substantial phonics component can lead a majority of children to Stage 3 reading by the end of grade one (Barr, 1974-75).

Stage 4: *Decoding Complex Words* or “Hierarchical Decoding”. The child uses complex conditional decoding rules to identify words (e.g., **hanity**, **cime**). For such rules, more than single letters must be used to determine letter-sound rules. (E.g., “**i** before **e** except after **c** and in sounds of ‘eigh’ as in ‘neighbor’ and ‘weigh’.”) Marsh and his colleagues report that by fifth grade, the majority of children were identifying some words with complex letter-sound combinations. (Marsh et al presented no data on 3rd and 4th grade children.) However, only a college student sample were as accurate at decoding complex pseudowords as second graders were decoding simple pseudowords (e.g., **bep**).

Grade level norms on the Woodcock Word Attack Scale are consistent with these stages.

Passage through these stages is probably affected by (1) the degree to which words being learned are visually similar (e.g., **shop** vs. **ship**), leading the reader to need to attend to print in more detail; (2) the degree to which instruction directly addresses the print-speech relationship (decoding or “phonics”); (3) total reading practice (e.g., number of words actually read); and (4) the child’s level of cognitive development.

**Growth of Vocabulary.** There are a substantial number of guides to vocabulary growth. The crudest measure is word length. (This is used in the Flesch-Kincaid readability measure that appears in many computer “grammar” programs.) Dale’s list of 3000 words known by 80 percent of fourth graders proved quite effective in determining passage complexity - the higher the percentage of words *not* on the list, the more difficult the passage.<sup>17</sup> The word list in their earlier readability scale yields similar results (Dale & Chall, (1948). As a more advanced reference, Dale & O’Rourke’s *Living Word Vocabulary* (2nd edition, 1981) contains information on the familiarity of 45,000 words for students in grades 2, 6, 8, 10, 12, and college, as determined in a number of studies.

## A SUMMARY CHART OF READING PROGRESS

I have prepared a brief summary chart of stages of reading progress, based primarily on Jeanne Chall’s *Stages of Reading Progress* (1983). I have limited the presentation to her stages 1 to 3, roughly corresponding to first to sixth or seventh grade.

## A Brief Summary of Stages in Reading Progress - Based on Chall's (1983) Stages 1 to 3

Stage 1	Stage 2	Stage 3
<p><b>Initial Reading and Decoding:</b> acquiring sight-vocabulary and some decoding skills - usually grade 1</p>	<p><b>Fluency:</b> consolidating print skills on well-controlled reading material - usually grades 2 and 3.</p>	<p><b>Reading To Learn:</b> applying reading skills to learn from more difficult texts - usually grades 4 and up. (Advanced High School and College levels will not be discussed)</p>
<p><b>Texts</b> Highly constrained by the limited vocabulary that can be <i>read</i>.</p>	<p><b>Texts</b> Constrained by somewhat limited vocabulary that can be <i>understood</i> and by need to limit total number of words which must be decoded. Also limited by words which are hard to decode. Reading speed for simple primer text should reach over 150 words per minute by the end of this stage.</p>	<p><b>Texts</b> Become more difficult. Expository texts used. Texts help introduce new vocabulary, but proportions of difficult words must be controlled (see Figure 2). Reading speed for simple primer text over 200 words per minute.</p>
<p><b>Sentences</b> Short sentences. In beginning books, may be isolated sentences on separate pages. Basic punctuation (spaces between words, sentence markers introduced)</p>	<p><b>Sentences</b> Average sentence length increases. Increased attention to punctuation. Role of more advanced punctuation (quotation marks, commas, paragraphs, etc.) is introduced.</p>	<p><b>Sentences</b> Average sentence length and syntactic complexity continues to increase.</p>
<p><b>Words</b> Simple "sight words" and easily-decoded words with simple letter-sound relationships. Readers making good progress may focus sometimes on print rather than context or both. This stage includes Marsh's first two stages.</p>	<p><b>Words</b> Print vocabulary increases with extensive reading practice and increasing decoding skills. Readers use both print and context effectively for word identification. Print vocabulary approaches speech vocabulary. Decoding involving conditional relationships (blends, "silent e's", and complex spelling patterns) should be gradually introduced.</p>	<p><b>Words</b> By end of grade 4, print vocabulary should approach the 3000 words on the Dale list. Vocabulary should continue to expand thereafter by at least 1000 "root" words a year. Decoding should not present a serious problem in reading, although some complex spelling patterns are still to be learned.</p>

## Endnotes

- <sup>1</sup> The figures given here come from McCarthy (1954) and Becker (1977). There is much flexibility in defining vocabulary (or lexicon) sizes. The sources used here refer to *root* words. For example, *BAKE* is counted, but *BAKER* and *BAKERY* are not. Additional information on vocabulary growth can be found in chapter 10 of Dale and Chall (in press), and Stanovich (1986).
- <sup>2</sup> A fourth level, subword, exists. Subword skills involve detecting speech sounds, letters, and letter patterns associated with speech sounds. Insufficient normative developmental data exists to provide useful details on this. (Details on the increasing ability to decode *words* is given in the Word Level discussion.
- <sup>3</sup> Note, however, that print names which are recognized only in a specific form or context (e.g., *FORD* on the family car) are not being “read”, but rather “recognized” as one recognizes a picture.
- <sup>4</sup> Similar growth can be seen in the print and speech children produce, although the complexity of their productions is generally lower than the complexity of language that they can comprehend.
- <sup>5</sup> This test is derived from the widely-used Iowa Test of Basic Skills, with some content modifications and normed on a Canadian sample.
- <sup>6</sup> It might be useful to have children generate “puzzles” — i.e. questions and multiple choice responses — about materials they are reading. This would not be to boost test performance per se, but rather an exercise in inference.
- <sup>7</sup> Discussed in Chall & Conard, 1991).
- <sup>8</sup> Bormuth (1967).
- <sup>9</sup> However, as outlined above, comprehension questions can be made “difficult” or “easy”. Hence the 75% figure applies to the typical range of questions.
- <sup>10</sup> Dale & Chall (in press); Klare (1984).
- <sup>11</sup> Data reviewed in chapters 5 and 6 of Dale and Chall (in press).
- <sup>12</sup> Dale & Chall (in press), chapter 4, table 7.
- <sup>13</sup> Note that “readability scores” based on vocabulary and sentence length would be exactly the same for a passage with sentences re-ordered randomly as for the original, meaningful text. This suggests an interesting experiment. At what age would the reading speed for randomly-reordered sentences differ from that for ordered text? What would be the impact on performance on comprehension questions and “cloze” items? I would expect that children would be affected by the random sentence text, for “comprehension” questions, but not necessarily for speed or cloze responses.
- <sup>14</sup> Dale & Chall (in press), chapter 7.
- <sup>15</sup> Loban (1976).
- <sup>16</sup> Marsh, Friedman, Welch, and Desberg (1981).
- <sup>17</sup> In fact, a serious case could be made for trying to ensure that by the end of fourth grade, most children (excepting handicapped and recent ESL arrivals) were familiar with these words in speech and print. In the case of ESL children, such a vocabulary list provides one basis for selecting materials for instruction and experience.



## Appendix A

**THESE PASSAGES CANNOT BE PUBLISHED WITHOUT PERMISSION OF JEANNE CHALL AND THE PUBLISHERS OF THESE PASSAGES.**

Sample Graded Reading Passages from Dale and Chall (in press, ch. 2)  
(100 word samples except for reading level 1)

### Reading Level 1 (end of first grade)

One morning Toad sat in bed.  
"I have many things to do," he said.  
"I will write them all down on a list so that I can remember them."  
Toad wrote on a piece of paper: A list of things to do today.  
Then he wrote:  
Wake up.  
"I have done that," said Toad, and he crossed out:

From **Frog and Toad Together**

#### *Readability Data*

Number of words in sample 60  
Number of whole sentences 6  
Number of words unfamiliar  
to fourth grade children 0  
Average sentence length 10

### Reading Level 2

(NOTE: underlined words are "unfamiliar" to fourth grade children)

"You said you didn't want it said Thelma. "And anyhow. I don't want to sell it now."  
"Why not?" said Frances.  
"Well," said Thelma, "It is a very good tea set. It is plastic that does not break.  
It has pretty red flowers on it.  
It has all the cups and saucers.  
It has the sugar bowl and the cream pitcher and the teapot.  
It is almost new, and I think it cost a lot of money."  
"I have two dollars and seventeen cents," said Frances.  
"That's a lot of money."  
"I don't know," said Thelma.  
"If I sell you..."

#### *Readability Data*

Number of words in sample 100  
Number of whole sentences 12  
Number of unfamiliar words 3

From: **A Bargain for Frances**

### Reading Level 3

(NOTE: underlined words are “unfamiliar” to fourth grade children)

Once upon a time a very small witch was walking in the woods. The cold wind was blowing the dry leaves all around her. the little witch was frantically searching for a house for the winter. She could not find one. Suddenly a piece of orange paper, blown by the wind, landed at her feet. She picked it up.

The little witch looked closely at the paper and then she said, “I shall make myself a little house from this piece of orange paper.”

She folded the paper in half. Then she took her scissors (she always carried a pair) ...

#### *Readability Data*

Number of words in sample 100

Number of whole sentences 8

Number of unfamiliar words 3

From: **Highlights for Children**

### Reading Level 4

(NOTE: underlined words are “unfamiliar” to fourth grade children)

Seals are wonderful divers. Some seals can dive several hundred feet below the surface. On deep dives, they can stay underwater up to 40 minutes without surfacing to breathe. They have special features to help save oxygen on such dives. When seals dive, they stop breathing. For very deep dives, their blood flow to everything except critical organs stops or slows. Seals can also slow their heart rates, sometimes to one-tenth the rates at the surface.

You may wonder how seals avoid the **bends** on deep dives. The bends are a painful condition. they are caused when nitrogen dissolves in..

#### *Readability Data*

Number of words in sample 100

Number of whole sentences 9

Number of unfamiliar words 8

From: **The Harp Seal**

### Reading Level 5-6

(NOTE: underlined words are “unfamiliar” to fourth grade children)

Eskimos of Alaska's Arctic north coast have hunted whales for centuries.

Survival has depended on killing the 60-foot-long bowhead whales that swim from the Bering Sea to the ice-clogged Beaufort Sea each Spring. the Eskimos' entire way of life has been centred around the hunt.

But now that way of life is being threatened by America's need for oil, say many Eskimos who hunt the whales.

Huge amounts of oil may be beneath the Beaufort Sea. And oil companies want to begin drilling this spring.

However, many Eskimos say severe storms and ice conditions make drilling dangerous...

### *Readability Data*

Number of words in sample 100  
Number of whole sentences 6  
Number of unfamiliar words 11

From: **My Weekly Reader**, Edition 6.

### **Reading level 7-8**

(NOTE: underlined words are “unfamiliar” to fourth grade children)

Why is it that as soon as “Jingle Bells” starts playing on the radio, otherwise-sane people are driven to extremes to create the Perfect Christmas? Take the case of Maureen McFadden, a **Woman’s Day** editor, who decided to decorate her tree with homemade gingerbread ornaments. “I started late in the evening,” she recalled. “And then I knocked the molasses jar on the floor.” It was downhill from there. Her cat—long-haired, of course—sat in the molasses pool. “And when I yelped, he ran down the hall into my bedroom spewing molasses everywhere.” Still, after she washed the...

### *Readability Data*

Number of words in Sample 100  
Number of whole sentences 7  
Number of unfamiliar words 19

From: **Woman’s Day**

### **Reading Level 11-12**

(NOTE: underlined words are “unfamiliar” to fourth grade children)

The latest finding is a refinement of evidence presented last summer by audio expert James Barger — who testified there was a 50 per cent probability that four shots were recorded on the tape. Barger has recorded test firings at various points in the Dealey Plaza, then compared them with the motorcycle recording. The greatest similarity was produced by two shots from the book depository, one from the knoll and another from the depository. But Barger did not draw firm conclusions because he could not pinpoint the policeman’s motorcycle; his estimate could have been 18 feet off in any direction. Weiss, whose...

### *Readability Data*

Number of words in sample 100  
Number of whole sentences 4  
Number of unfamiliar words 23

From: **Newsweek**



**Table 1**

Sample Comprehension Questions Passed at 80% or Higher  
(Correct alternatives are shown directly below the questions.)

Grade 3 (Passage 1)	<b>Where does the baby whale get its food?</b> (from its mother - low inference)
(Passage 2)	<b>Why are the children batting at the air?</b> (They are trying to catch flying insects - low inference)
Grade 5 (Passage 8)	<b>What is the best way to tell whether a plant is poison ivy?</b> (Look at the leaves - low inference) Note: 65% of 3rd grade children passed this item.
(Passage 9)	<b>What idea did Omoro hope to put across to his grandsons?</b> (Working together accomplishes more than fighting - higher inference - not stated in passage) Note: 56% of 3rd grade children passed this item.
Grade 7 (Passage 10)	<b>What is the purpose of the writer of this selection?</b> (To tell one how to survive under difficult conditions - high inference - no title or purpose stated) Note: 69% of 5th grade children passed this item.
Grade 7 (Passage 15)	<b>What was the first geographical barrier met by the Pony Express?</b> (A waterway - low inference but “waterway” is described as “river” in text, and reader must know that a river is a geographical barrier) Note: 52% of 5th grade children passed this item.

**Table 2**

Sample Comprehension Questions Passed Between 40% and 50%

Grade 3 (Passage 8)	<b>Which best tells where this plant is found?</b> (Where other plants grow - higher inference - no such specific statement is made in the text) Note: 65% of 5th grade children passed this item.
(Passage 9)	<b>What was wise about the way Omoro “cured” the boys?</b> (He let them find out for themselves - high inference - no such statement is made in the text) Note: 76% of 5th grade children passed this item.

Grade 5 (Passage 10)

**Which sentence best summarizes the advice given in this story?**  
(**Make yourself comfortable and help others try to find you** - medium inference)

Note: 69% of 7th grade children passed this item.

(Passage 15)

**What caused the Pony Express to go out of business?**  
(**The invention of the telegraph** - medium inference, relevant text reads "But before long, communications were taken over by the transcontinental telegraph...")

Note: 78% of 7th grade children passed this item.

Grade 7 (Passage 17)

**Why did the Indians drop heated stones into the maple sap?**  
(**To evaporate some of the water** - medium inference, the relevant text states that "Some tribes used to drop heated stones into the sap over and over again until it boiled down to the right consistency". Many students may not be familiar with "evaporate".)

(Passage 19)

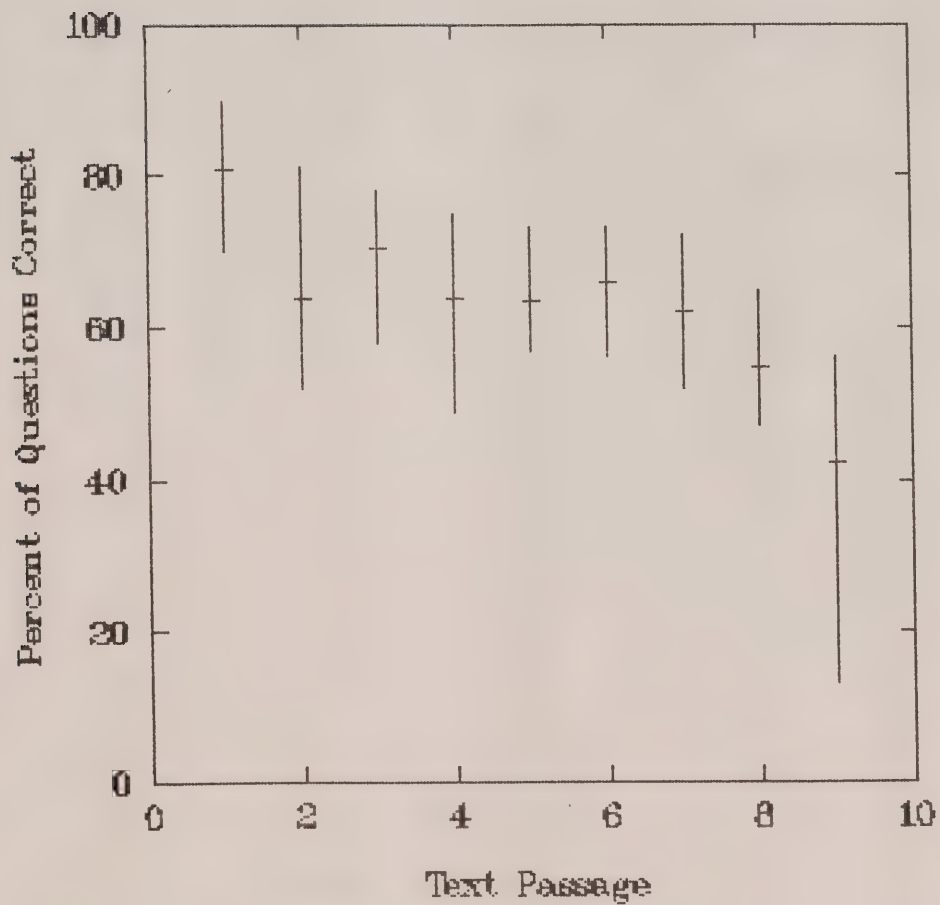
**Which of the petrified trees mentioned in the article are the oldest?**  
(**Those at the base of the fossil cliff** - high inference, one has to infer answer from the petrification process described.)

**Figure 1A**

High, Low, and Average Percentages of Correct Responses to Comprehension Questions by Passage: Grade Three

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**Figure 1A    Grade 3**



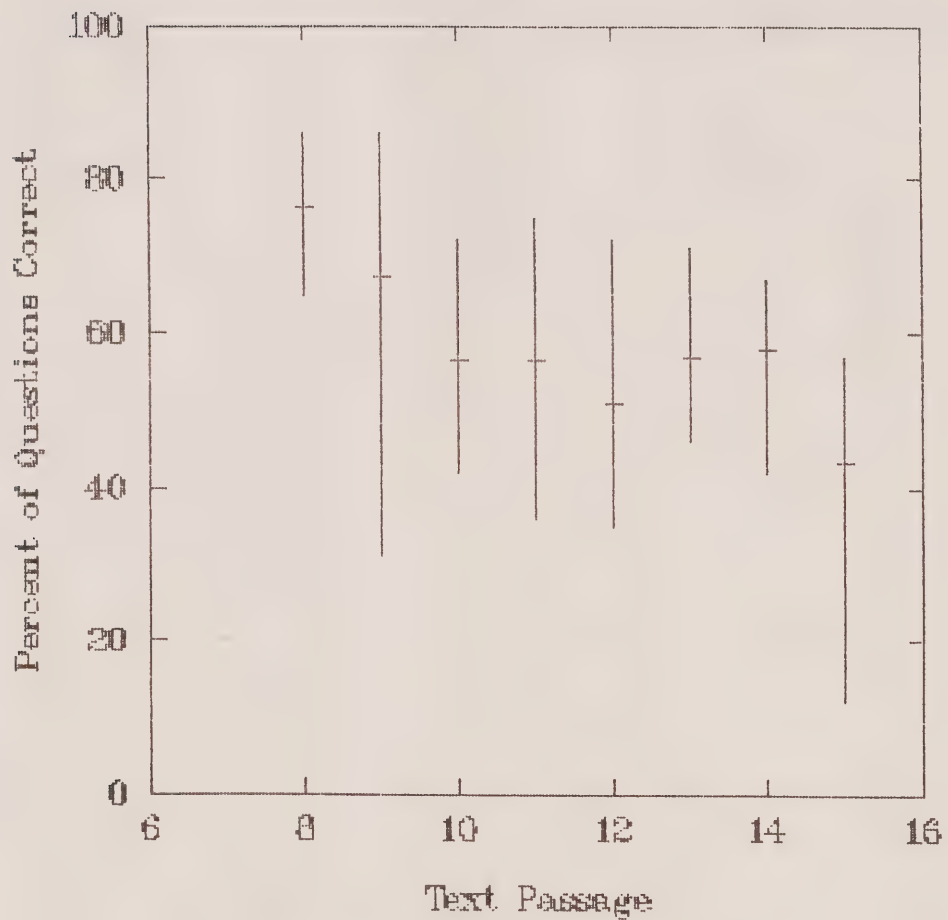


**Figure 1B**

High, Low, and Average Percentages of Correct Responses to Comprehension Questions by Passage:  
Grade Five

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**Figure 1B    Grade 5**

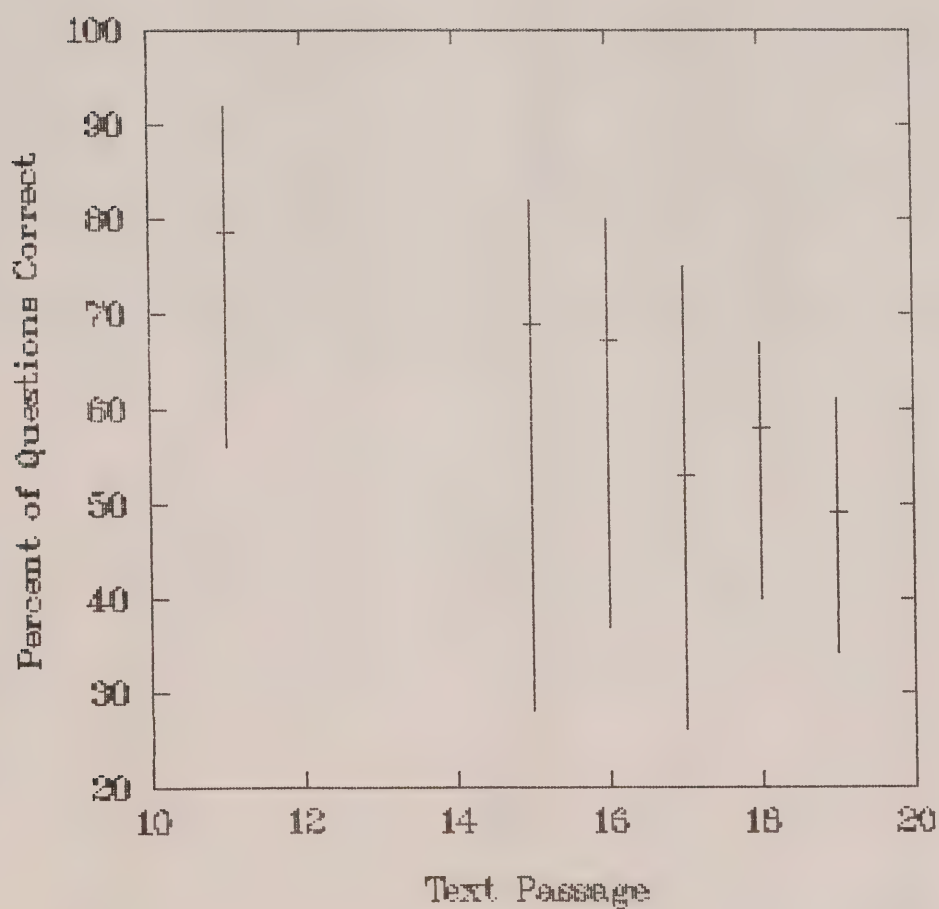


**Figure 1C**

High, Low, and Average Percentages of Correct Responses to Comprehension Questions by Passage:  
Grade Seven

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**Figure 1C Grade 7**

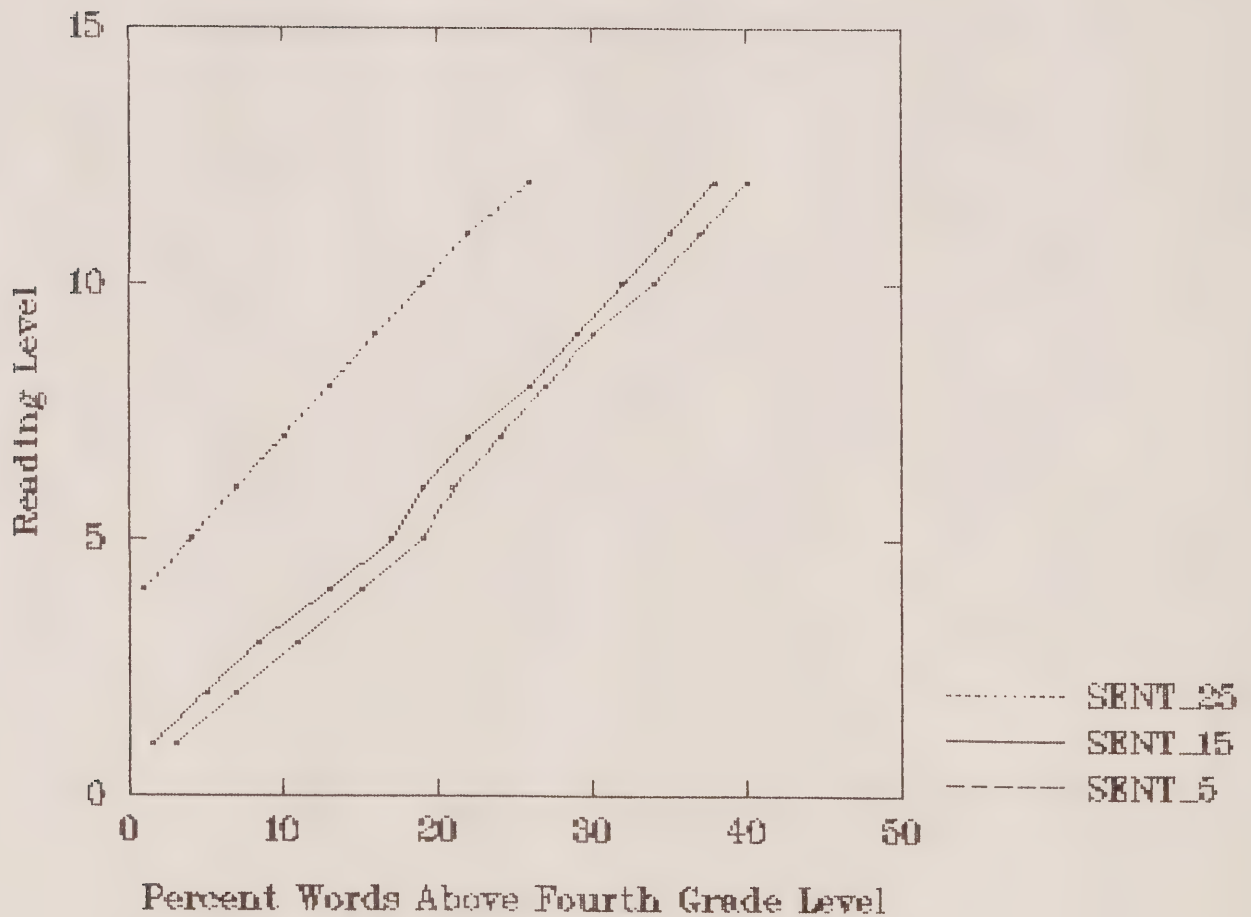


**Figure 2**

Reading Levels of Passages with Average Sentence Lengths of 5, 15, and 25 Word Words Based on the Dale-Chall Revised Readability Formula

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**Fig. 2 Reading Level by Vocabulary Load**





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**Towards Higher Levels of Literacy  
in Ontario**

**Andrew Biemiller and David Booth**

May 22, 1994





***Towards Higher Levels of Literacy in Ontario. May 22, 1994.***

***(Vers des niveaux plus élevés de connaissance de la lecture et de l'écriture en Ontario), 22 mai 1994.***

The authors state their premise that the chief aim of any democratic educational system ought to be the establishment of a literate population. They define a literate population as one which can participate effectively in discussions of both the issues and the technologies of the era, and do so through both the speech and print media of language. Within this context, they discuss what is learned as children become literate (expanding language, bringing print fluency to the same or higher level as speech fluency, and some of the specific sub-skills which must be mastered in order to equate print fluency and speech fluency); problems of diversity (ranges of differences in levels of literacy attained and implications for regular classroom and for special education practices); and the roles of direct instruction and good practice. The authors conclude that effective teaching of oral language, the print-speech code, and reading and writing strategies involves a combination of direct instruction of new skills and strategies, well-designed practice, student consultation about the content and the processes of reading and writing, and application of literacy skills in contexts that matter to children. The use of some well-sequenced vocabulary-controlled reading materials renders effective teaching more feasible. Normal diversity in reading achievement means that teachers must be prepared to teach children who vary by at least three grade levels.

The final section of the essay contains specific policy recommendations for increasing literacy in Ontario. They recommend that (1) an increased emphasis be placed on developing oral language competence in the primary years and the continued awareness of the distinction between oral and print language throughout the junior years; (2) the importance of mastering the code that links print to speech be clearly articulated by the Ministry; (3) there be recognition of the need for planned sequential materials with vocabulary lists and explicit phonic focus; (4) realistic, objective assessment procedures which can be carried out in reasonable amounts of time be developed to be used in conjunction with more time-consuming individualized assessments; and (5) the Ministry provide effective guidelines and courses for pre-service and in-service teacher training to ensure that the preceding recommendations can be implemented by teachers

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Les auteurs partent du principe que le but premier de tout système éducatif dans une démocratie est de former des citoyennes et des citoyens sachant lire et écrire, et par conséquent capables de participer pleinement aux débats sur les questions et les technologies actuelles, grâce aux moyens offerts par le langage (parlé et écrit). Dans ce contexte, les auteurs se demandent ce que les enfants acquièrent au juste lorsqu'ils apprennent à lire et à écrire (élargissement du vocabulaire, développement des aptitudes d'écriture jusqu'à un niveau égal ou supérieur à celui des aptitudes de parole, et enfin certaines des sous-aptitudes spécifiques que l'enfant doit maîtriser pour arriver à écrire aussi couramment qu'il parle). Ils étudient également les problèmes posés par la diversité (l'étendue des différences dans les niveaux de lecture et d'écriture atteints et leurs conséquences pour les pratiques d'enseignement dans les classes régulières et spéciales), ainsi que le rôle joué par l'instruction directe et l'importance des modèles de pratique. Les auteurs concluent que pour réussir l'enseignement du langage oral, du code écriture-parole, et des stratégies de lecture et d'écriture, les enseignantes et enseignants doivent allier l'acquisition des nouvelles aptitudes et stratégies par l'instruction directe, la mise en œuvre de pratiques bien conçues, la participation de l'élève (par la consultation) dans le choix du contenu et du processus des exercices de lecture et d'écriture, et enfin l'enseignement de la lecture et de l'écriture dans un contexte qui paraît pertinent à l'enfant. La réussite de l'enseignement est facilitée par l'emploi de matériel de lecture au

vocabulaire soigneusement choisi, qui correspond bien à la progression de l'apprentissage. Puisque le rythme d'apprentissage de la lecture diffère normalement d'un enfant à l'autre, les enseignantes et enseignants doivent adapter leur instruction à la gamme de niveaux des élèves (qui peut s'étendre sur trois années d'enseignement ou même davantage).

Les auteurs concluent leur article en préconisant des politiques spécifiques visant à accroître les niveaux de lecture et d'écriture en Ontario. Ils recommandent (1) d'insister davantage sur le développement de la compétence en langage oral pendant les années de l'élémentaire, et de sensibiliser constamment les élèves à la distinction entre le langage oral et le langage écrit pendant toutes les années du cycle primaire; (2) que le Ministère énonce clairement l'importance de la maîtrise du code qui relie l'écrit à l'oral; (3) de reconnaître le besoin d'employer un matériel à la progression ordonnée, comportant des listes de vocabulaire et explicitement axé sur la méthode phonique; (4) la mise au point de procédures d'évaluation réalistes et objectives, qui puissent être mises en œuvre dans un délai raisonnable, et leur application de concert avec des évaluations individuelles plus prolongées; et (5) que le Ministère donne aux enseignantes et enseignants les moyens d'appliquer les recommandations précédentes en leur fournissant des directives concrètes et en organisant à leur intention des cours de formation préalable et de perfectionnement.



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## Introduction

The chief aim of any democratic educational system ought to be establishing a literate population. By “literate”, we mean a population which can participate effectively in discussions of both the issues and the technologies of the era, and do so through both the speech and print media of language. In the present section of this paper, we are going to discuss *what is learned as children become literate*: expanding language, bringing print fluency to the same or higher level as speech fluency, and some of the specific sub-skills which must be mastered in order to equate print fluency and speech fluency. In the next section, we will discuss *problems of diversity*: ranges of differences in levels of literacy attained and implications for regular classroom and special educational classroom practices. In the third section, we will briefly review *what is known about becoming literate*: about the roles of direct instruction, well-scaffolded practice, active consultation, and relevant applications of school skills. Finally, we will conclude with *specific policy recommendations* for increasing literacy in Ontario.

## What is Learned in Becoming Literate?

Becoming literate involves expanding our language (adding to vocabulary, and increasing sentence and text complexity), *and* becoming able to use printed language at least as effectively as we use spoken language. Becoming effective in using printed language involves mastering the code that relates written and spoken words, as well as codes for marking sentences (punctuation), and strategies for comprehending and generating different kinds of communications in print.

**Expanding language.** Becoming more literate means using more complex language, whether in print or in speech. Vocabulary increases<sup>2</sup>, more complex syntactic structures are used<sup>3</sup>, and more complex ideas and narratives are generated and comprehended<sup>4</sup>.

When a child’s *language* fails to grow, or when a child encounters linguistic demands that exceed his/her current capacity, the child becomes discouraged. This phenomenon has recently been documented in two books by Jeanne Chall and her colleagues.<sup>5</sup> Many children who make good progress in beginning reading suffer what is commonly called a “fourth grade slump”. These children have *succeeded* in “breaking the code” - in learning to identify printed words. However, if their oral language is not strong, they have trouble understanding reading material with a substantial number of unfamiliar words and longer, more elaborate sentence structures.

Prior to third or fourth grade, *print* language in school has typically been restricted in vocabulary and sentence complexity. Even children with somewhat restricted language development do not have serious difficulty understanding “**Dick and Jane**” readers, or Dr. Seuss’s **The Cat in the Hat**. However, when we begin to have children “read to learn” in the middle grades of elementary school, we often expect them to learn from texts which involve more difficult language than they can use.<sup>6</sup> Of course, if children’s language is to grow, they *must* be challenged by language that is more advanced than their present level. When advanced language is used, teachers must be prepared to support students if they are having difficulty, and the level of challenge must not be overwhelming for the individual child.

Jeanne Chall suggests that during the two to four (or more) years of primary education, when we are bringing the child’s fluency in print up to the same level as fluency in speech, we need to *add* a concern with building basic language strength.<sup>7</sup> During this period, we appropriately use restricted language materials for the child to read and write with, consistent with children’s limited decoding and encoding skills. We should at the same time work hard to enrich spoken language. However, too often very little is done in primary education to build the child’s spoken language. Unfortunately, children with more limited speech language are those *least* likely to experience further language development opportunities *out* of school. When language facility is not addressed in school, literacy “gaps” between advantaged and disadvantaged children widen. One cannot be highly “literate” with limited oral language. Hence, schools must recognize that building oral language strengths in the primary and junior years is an important part of their job.



**Increasing print competence.** “Becoming literate” involves increasing competence in using language *in print* as well as expanding the power of spoken language. We suggest that “beginning reading” ends when a child can understand in print anything she can understand in speech. Similarly, “beginning writing” ends when a child can express in print anything she can express in speech. When are these points reached? Anywhere from second grade to never. In an Ontario study, Biemiller and Siegel found that by second grade, a small proportion of advantaged (upper middle class) children can apparently comprehend material in print as well as they do when it is presented orally. By sixth grade, the majority of *advantaged* children can do this. This is consistent with findings by others.<sup>8</sup> *Thus many children continue to need instruction and support in reading skills well past the primary years.*

While reaching the point where speech and print comprehension are equal is a major milestone in becoming literate, it is *not* the end of the road. As we become more skilled readers, we can often comprehend complex material far *more* easily in print than in speech. This is because while speech is ephemeral, print *lasts*. Print language can be reviewed - both during the first reading and later. Different parts of a written text can be compared. Thus, in the later stages of becoming literate, we learn strategies for obtaining information from print that cannot be used with speech - e.g., skimming, reviewing, monitoring comprehension, taking and organizing notes, summarizing, etc. (Some of these strategies can be applied to oral presentations - *if* one can take notes.) Much more could be said on the topic of advanced literacy, but we believe the main focus of this paper should be the beginning phases of literacy.

**Component skills involved in comprehending print as effectively as speech.** Given the heat of debate regarding instruction during the past 25 years, it is surprising how much agreement exists regarding what readers are doing when reading effectively. Major writers in the field, including Marilyn Adams, Jeanne Chall, Ken and Yetta Goodman, Charles Perfetti, Frank Smith, and Keith Stanovich, all appear to agree that effective readers use three kinds of information to comprehend the language they hear or read:

- a. *Sound, letter, and letter-sound information.* Sequences of speech sounds or *phonemes* (in the case of spoken language) or *letters* (in the case of written language) are necessary to identify words. Effective language users are familiar with both the elements (sounds and letters), and with sequential structure of what sounds or letters may follow each other in a given language.<sup>9</sup> Not only do successful readers use letters to identify printed words, just as they use phonemes to identify spoken words, but virtually all successful readers have developed a substantial grasp of the coding system that links print to speech.<sup>10</sup> This coding system is necessary for identification of known but previously *unread* words. Decoding skill may also be an indicator of having acquired enough of the sequential structure of print to facilitate fluent reading.<sup>11</sup>
- b. *Syntactic information.* Syntactic information contained in the arrangement of words and in syntactic “markers” (e.g., intonation signalling a question or a question mark as well as indicators of tense, number, etc.) contributes to word identification. Virtually all readers read words in grammatical sequences more rapidly and accurately than randomly ordered words.<sup>12</sup>
- c. *Contextual information.* “Making sense” of what we hear or read involves relating the new communication to what we already know about the topic. If we know *nothing*, it is almost impossible to use the communication. In addition, the text of a specific communication can also help with the identification or definition of a few words.<sup>13</sup> Ultimately, of course, no communication can be comprehended if the listener or reader is unfamiliar with many of the words and meanings discussed. Consider how we react when someone begins to speak to us in foreign language or uses many unfamiliar technical terms.

There is little debate today about the fact that we use all of these sources of information to comprehend language. There are differences in detail, but all agree that all of these three types of information must be used in successful reading and hence must be acquired as part of learning to read. We will now examine each of these information categories in more detail.

**Sound, letter, and letter-sound information.** The period of *beginning* reading is the period during which the learner is becoming able to perceive language through print as effectively as she perceives language through speech. *It is crucial that teachers understand that if the letter-sound code is not eventually mastered, the learner will be as limited in the world of print as is a hearing-impaired or foreign language pupil in the world of English speech.*

Effective readers are aware of the sounds that make up speech words and the letters that make up print words. They understand the relationship between print and speech and can perform reasonably well reading “pseudowords” (e.g., blorm, steck).<sup>14</sup> Kindergarten children who are unable to attend to speech sounds, and cannot name letters are at a distinct risk for reading difficulty<sup>15</sup>. However, these gaps in knowledge should *not* be taken as grounds for retaining a child in kindergarten, but rather for ensuring that letter names are taught and practiced, and that attention is given to speech sounds in the context of poetry and word games. Doing this has been shown to dramatically improve beginning reading.<sup>16</sup> During first grade, the miscues of children making good progress in reading initially focus primarily on print, with little attention to syntax or meaning.<sup>17</sup> Their continuing progress in reading comprehension can be largely predicted from their increasing ability to identify words *out of context* rapidly and accurately.<sup>18</sup> We do not mean by this that children ought to learn to read using contextless material! Quite the contrary. The main purpose of reading is comprehending text. However, the significance of these findings is that most of the important learning in *beginning reading* is going on at the level of letters and words. In texts that beginning readers *can read*, the language structure is *less* complex than the language beginning readers speak and understand.

It is clear that many children, perhaps a majority, can “master the code” without explicit instruction.<sup>19</sup> For others, being taught how to use the print to speech code is a necessity. For those children who could master the code without instruction, the question becomes “will code emphasis instruction slow or harm the acquisition of reading and spelling competence?” The answer appears to be “no”. In fact, the evidence is clear that adding a code emphasis to instruction with text facilitates literacy acquisition.<sup>20</sup>

There can and will be many arguments about *how* mastery of the letter-sound code is best achieved. *There can be no argument that in the absence of the ability to recognize a vast number of English words readily and accurately, an individual is gravely handicapped in our society.* Children who cannot read fluently will experience difficulty in all areas of schooling. Adults who cannot read fluently will find that the majority of job opportunities exclude them. Teachers have a responsibility to monitor growth of the child’s print vocabulary and skills for dealing with unfamiliar print words. When that growth is below what might reasonably be expected, teachers have an obligation to seek and employ instructional methods which may be more effective.

**Syntactic Information.** Readers use syntactic information to facilitate word identification. Thus, even first grade children can identify words faster and more accurately in a syntactic and meaningful context than in random lists<sup>21</sup>. This use of syntax (and context) is not taught - it appears automatically in virtually all children (*unlike* word identification skills). However, some aspects of the syntactic system in print do require instruction.

In print language, we not only transmit words but also syntactic information. In modern print, we use spaces to mark words, periods to mark sentences, capital letters to mark sentence beginnings and proper names, quotation marks for explicit speech, and commas, semicolons, and colons to set off phrases. While these markers are not the most difficult component of print-specific literacy, teachers need to introduce them with care and be sure that in time students become clear about their use. ~~readingtotallyunpunctuatedprintlanguageisnotimpossiblebutismoredifficultthanreadingpunctuatedlanguageitwouldbehardertolearntoreadusingunpunctuatedlanguage~~



**Contextual information.** Communications convey messages which have implications for action and understanding. The receiver of such messages usually has a considerable idea about *what* is being communicated - otherwise little communication occurs! (Think about the last time your auto or computer service person attempted to explain what was wrong.) To some extent, it is possible to “fill in the gaps” - to define *unknown* words from the surrounding context. It seems likely that most vocabulary growth after second or third grade occurs through self-determined definitions. The total number of words overtly “taught” in school is very much smaller than the total number of words many children add to their vocabularies.

Unfortunately, the ability to define words from context declines rapidly when there are many “unknown” words in the text. This is why it is important to ensure that oral language grows during the beginning years of reading. It is also why it is important that teachers monitor the vocabulary load children are experiencing as they read new books. Teachers may need to explicitly teach some new vocabulary, and teach children strategies for dealing with unknown words.

Note that for practical purposes, it makes no difference whether the “unknown” word is “unreadable” or truly unknown (“Never heard it before”). Note also that if the unknown word is *both* unknown and unreadable, *even* if the child determines a meaning, she will not have a normal speech word with which to access that meaning or to communicate to others about the meaning. Thus if vocabulary is to grow, it is important that children not be confronted with *too many* unfamiliar words, and that they have effective decoding skills.

**What is Learned in Becoming Literate: Summary.** Becoming literate means expanding our language (vocabulary, sentence and text complexity) *and* becoming able to read and write this expanded language as fluently as we speak and hear it. Expanding oral language is not dependent on acquiring print word identification skills and may progress at a different pace. However, successfully reading and writing one’s expanding language involves mastering the print-speech code as well as the syntactic cues necessary for understanding sentences. Effective speakers and readers must also learn to use context and prior knowledge (part of becoming literate) in comprehending current messages.

## Diversity and Becoming Literate

In this section, we are going to discuss the *normal variation* in becoming literate - which is large - and the issue of *when* some form of “special” or “remedial” literacy teaching is needed.

**Normal Diversity.** We can think about “diversity” in terms of how children of a given age vary in literacy, *or* in how long it takes different children to reach high levels of literacy. Children differ greatly in how long it takes them to become literate. Their rate of progress is affected by:

- (a) the instruction they receive,
- (b) how much they read,
- (c) the amount of encouragement they receive from their parents, classmates, and teacher,
- (d) their engagement with text,
- (e) their proficiency in the language they bring to school and learn in school,
- (f) their health (especially hearing and vision),
- (g) their age,
- (h) their general rate of cognitive development, and
- (i) specific reading disabilities.

There is evidence that reading instruction which provides more emphasis on skills for identifying words in context, and more emphasis on building language strength results in more children becoming truly literate, and doing so sooner. However, we must be clear that what is really important is *becoming literate*, not whether this happens in first, second, or third grade.



When we look at children at a particular point in time - for example, the end of fourth grade (or about age 10) - there are large differences among them. About ten percent of fourth graders can read and understand passages that *average* sixth graders can read. Another ten percent of fourth graders have difficulty with material that *average* second graders can read. *Because diversity is so great, it is impossible to specify levels of achievement expected of "all" or "most" children in a grade unless (a) we set the level very low so most will pass, or (b) we set a high level and many are perceived to "fail".*

In some ways, we might do better to evaluate literacy growth the way we evaluate growth in height. We don't describe a child as "failing" because his height happens to be "below the median" for his grade level. We do become concerned if a child fails to show *normal growth* over a period of time, relative to his starting point. At the present time, it is fair to say that there are too many children in Ontario (perhaps a quarter or a fifth) who are showing less than "normal growth" in reading.<sup>22</sup> When below normal growth is seen, we need to look at all the reasons outlined above (instruction, practice, encouragement, language, health, age, cognitive development, and reading disabilities) to be sure that the child is getting the best support possible for making progress in literacy.<sup>23</sup>

Diversity is partly expressed in "readiness". Readiness was defined by David Ausubel and Edward Sullivan as *when a child could profit from instruction under normal school conditions*.<sup>24</sup> Evidence from a number of studies of reading instruction from ages four to age seven suggest that only about 50% of children make much progress in classroom reading instruction in kindergarten, 60% to 70% do so in first grade, and 80% do so in second grade.<sup>25</sup> Research in Ontario by Maria Cantalini-Williams makes it clear that *age* plays a role in these findings. Children born in November and December (the youngest children in an Ontario class) make substantially less progress in reading in first grade than those born in January and February. By the end of grade two, these age-related differences are reduced, suggesting that many of the younger children reached a threshold of development permitting them to master beginning reading.<sup>26</sup> We stress that these findings do not imply that "reading instruction" should simply be delayed until age seven. However, the findings do indicate that children in a given class will not progress at the same rate, and that variables listed previously play a role in the rate of progress experienced.

The net effect of normal variation in reading achievement is that teachers should expect to deal with a range of at least three "grade levels" in a classroom. "Grade level" means quite simply the *median* level of performance of children in a grade. Thus, first grade teachers can expect to have some children who are really "emergent readers" - just beginning to learn about letters, speech sounds ("phonemic awareness"), and how books are used. Others will be making "typical progress" in learning to read and write. Still others may already *be* effective readers and writers - certainly at a "second grade" level. In the section of this paper on *how* we become literate, we will discuss ways that teachers can address this diversity in their classrooms.

**"Special Education".** When is "special" or extra educational support called for, and what can it achieve? We suggest as a rough "rule of thumb" that classroom teachers should be responsible for a three-year spread. In practical terms, this would mean that by third grade, *beginning* readers should receive extra help beyond what the teacher can provide while doing a responsible job with the rest of the class. By fourth grade, children who cannot read "second grade" level text independently (i.e., around 90% accuracy) would need such additional assistance.

Children with advanced literacy skills *should* also receive some opportunities for more challenging activities than early elementary classrooms normally provide. To some extent, such children are more able to provide this for themselves. By third grade, reading programs should provide for extensive self-chosen reading activities for children who are reading independently.

At the present time, there is much excitement about special programs such as Reading Recovery, Success for All, and others. This excitement may reflect the increasing numbers of children experiencing reading difficulties<sup>27,28</sup> Interestingly, older programs (e.g., DISTAR), with more impressive results than some of the new interventions, are rarely mentioned.

A basic issue when expensive "special education" reading programs are considered is *why* the programs succeed? Is it because of intensive one-to-one instruction, or because of better

instructional sequences and better instructional materials? In the latter case, these improved instructional methods should be incorporated into regular classroom instruction. Early failure requiring remediation could be avoided, while costs would be reduced.

Most of the “new” reading treatments involve a lot of tutorial instruction (up to half an hour a day). There is usually more control over reading material. In the more effective programs, phonic word identification skills are taught and practiced.<sup>29</sup> In some cases (e.g., “Success for All”) tutorial work is integrated with regular classroom instruction (which itself is ability grouped). In other cases, (e.g., “Reading Recovery”) the tutorial instruction is not coordinated with classroom instruction. The usual claim of these tutorial projects is that children are brought to *their* class’s average.<sup>30</sup> In fact, this is usually measured on word identification accuracy only. Thus far, no evidence has been presented that indicates that tutorial approaches to reading difficulties bring children up to class averages (much less *age norms*!) on reading *comprehension*.<sup>31</sup> More generally, there is *no evidence that “special methods” of instruction benefit “reading disabled” children in ways that are different from non “disabled” children*. In other words, what is working with children in special programs is *good instruction*, not “special” instruction.

Most of the tutorial interventions have focused on first and second grade children. Michal Shany and Andrew Biemiller reported somewhat more success with an inner-city Toronto population, getting reading comprehension gains of about one grade level with grade three and grade four children over sixteen weeks of individually assisted reading practice.<sup>32</sup> However, Shany and Biemiller note *no* gains in independent word identification. Although their reading comprehension had improved substantially as a result of assisted practice, the children still needed instruction in phonics and other word-identification skills to become more independent in their reading.

What do we do to achieve gains in *both* word identification and comprehension skills? The answer appears to be to *teach* both. Children who do not become able to identify most of the words they encounter in print *cannot* read independently. Children who do not understand what they’re reading, *will not* read independently. Students need direct instruction in word identification *and* comprehension skills, and opportunities to practice and apply these skills as they progress through elementary school.<sup>33</sup> These points will be discussed at greater length in the next section.

Gains with at-risk children on word-identification skills at least as large as those of tutorial programs were reported with two *classroom* programs, DISTAR and “Behavioral Analysis”, as part of the Project Follow Through studies in the mid 1970’s.<sup>34</sup> Some success (in word identification skills) has also been reported with at-risk first grade children in Ontario using an in-class program, *Bridge*.<sup>35</sup> This is not to argue that out-of-class interventions are never warranted. However, we do suggest that in many cases, when the effective features of out-of-class programs are incorporated in classroom instruction<sup>36</sup>, *that the need for special programs may be greatly reduced*.

With good reading programs and some reasonable flexibility of expectations, most children enrolled in school should become literate in print and oral language. *When* they will do so will vary, *but should occur before the end of sixth grade*. Effective word-identification and spelling skills should be mastered sooner. This being said, we must realistically acknowledge that there are two small groups who may not become literate. The first group consists simply of seriously “developmentally delayed” or “mentally challenged” children. Because of various forms of brain damage and abnormal development, some children are either unable to develop reading skills, or their general language development (oral as well as written) falls below what could be considered “literate”. When general intellectual function is low, literacy cannot be high.

The second group consists of those who apparently have some specific disability affecting the reading process. They read unusually slowly for their age (even their reading of letters is unusually slow), and they usually have more than ordinary problems identifying sounds in speech and relating print to speech. For this group (representing 3% - 6% of the population), highly specialized reading instruction can help to some degree, but they may never achieve levels of fluent literacy enjoyed by their classmates.<sup>37</sup>

Unfortunately, the educational system tends to greatly over-diagnose *reading* difficulty of this type (sometimes labelled “dyslexia”), while under-diagnosing *instructional* difficulty - i.e. failures resulting from poor or non-existent instruction. For every child suffering from a true “reading handicap”, we suspect there are at least three to five suffering from an “instructional” handicap -



no one has *taught* them to read, write, and use the language. The main evidence for this assertion is the success of reading intervention programs - when children are *taught* reading, more succeed.<sup>38</sup> When children reach third or fourth grade with poor reading skills, a “vicious circle” is established, whereby the poor reader avoids reading, fails to get sufficient reading practice, and falls further and further behind. This sequence of events is described dramatically in Keith Stanovich’s “Matthew Effects in Reading”.<sup>39</sup>

Finally, we must note that non-English speaking children who enter the school system *after kindergarten* will be at a disadvantage and will require some special instruction to help them master English. The degree of disadvantage increases with age at entry into a Canadian school.<sup>40</sup> The degree of literacy in the ESL (English second language) child’s first language is associated with the degree of literacy in English. Evidence suggests that these children will also be influenced by the factors affecting English-speaking children: instruction, practice, engagement, encouragement from parents peers and teacher, quality of first language, health, and cognitive development. There is also some suggestion that parental encouragement to learn English may play a role in the student’s success.

**Diversity and Becoming Literate: Summary.** We have argued that considerable diversity in *when* children become literate is the norm rather than the exception. This means that regular classroom teachers must be prepared to teach children who vary by as much as three grade levels in reading and writing skill. Such variation does not automatically indicate the need for “special education”. Teaching methods should include instructional goals and materials that have been found successful in “special education” and compensatory interventions - e.g., incorporating some focus on phonics and other word identification skills, and using vocabulary-controlled materials of high interest to allow children to build reading vocabulary successfully. Special remedial interventions will be needed for children who fall more than a “grade level” behind by third grade, and for non-English-speaking children who enter the school system after kindergarten.

### **How Do We Become Literate?**

In this section we are going to discuss briefly (a) the debate about beginning reading or how mastery of the letter-sound code is achieved, (b) the nature and importance of instruction, (c) appropriate materials for literacy acquisition, (d) how differences in ability can be addressed in the classroom, and (e) how instruction can be organized so that students progressing at different rates can learn effectively. Each of these aspects of teaching literacy affects our students’ success.

**The “Great Debate”.** Most of the debate about *beginning* literacy instruction concerns *how* we master the print-speech code and build general language competence. At one extreme, some advocates of “skill-oriented” instruction appear to believe that providing formal instruction in “phonics” will solve everybody’s problems. At the opposite extreme, some advocates of holistic education appear to believe that *no* instruction is necessary at all - that children will derive all the skills they need from interaction in authentic contexts. Clearly, neither of these positions is valid. The facts that (1) no matter what approach is used, *some* children will not progress as quickly as others, and (2) some children will not become fully literate, provide a continuing basis for dissatisfaction with whatever method is current. However, the question for policy-makers must be “what is most effective?”, not “what works for everyone, every time?”

The conclusion of several reviewers of research on reading instruction is remarkably consistent. Reading instruction which incorporates some direct, systematic focus on the code that links print to speech, *along with reading and writing text*, results in more children learning to read and write.<sup>41</sup> No opposing position has been put forth *with any empirical evidence*.<sup>42</sup> We will discuss ways to implement this conclusion in the remainder of this section. We will also be discussing briefly other aspects of literacy including comprehension strategies and oral language development. **Appendix A contains some suggestions regarding teaching children about spelling to sound and sound to spelling sequences or “phonics”.**



**The Nature and Importance of Instruction.** Children often need to be taught how to perform new skills. This is as true of reading as it is of swimming, computing, or driving. There is no evidence, for example, that more than a very few children learn to read or write without instruction of some sort. The simple truth is that communicating through print is *not* a natural human capacity like seeing or speaking. It has to be taught.

Teaching leading to *independent* performance of a particular skill or strategy involves four phases:

- (a) *acquisition* of the skill through direct instruction or demonstration by a skilled person<sup>43</sup>,
- (b) *consolidation* of the skill or strategy through practice under controlled or “scaffolded” circumstances in which the learner will be able to perform the skill successfully,
- (c) *consultation* about the skill or strategy through which the learner becomes more verbally fluent and *self-regulated* in the uses and analysis of the skill or strategy by explaining both the process and content of tasks to others and to herself, and
- (d) *independent application* of the skill or strategy in a variety of new situations in which it is relevant.<sup>44</sup>

Many “skill-oriented” educators tend to emphasize the acquisition and consolidation phases of learning at the expense of the consultation and application phases. Many “holistic” educators tend to do just the opposite - emphasizing the consultative and independent application phases. Neither limitation of the complete learning process does learners much good.

In the case of *beginning* reading and writing, some of the skills which have to be *acquired* through instruction include the identification of words which beginners have not previously seen in print (when they lack decoding skills), spelling some words which the children have not previously written, procedures for “decoding” some print words using spelling-to-sound correspondences or “phonics” and “encoding” some words in print using sound-to-spelling correspondences, uses of punctuation, etc. Many children acquire these skills faster - or only - if they are explicitly taught.<sup>45</sup>

In addition to acquiring new print skills, first and second grade children need to *acquire new oral vocabulary and language comprehension skills*. This involves reading books to the children that are more advanced than what they can read, discussing those books, and teaching oral comprehension strategies. As with print skill instruction, some of this type of work may need to be in small groups.<sup>46</sup>

After a planned lesson introducing needed skills or words, the beginning reader needs frequent opportunities to read currently and recently-acquired words in several different contexts. Such opportunities allow the reader to *consolidate* this new print vocabulary, so that the words (and decoding skills) come to be recognized quickly. Note that there are real limitations to making the content “interesting” when one can read only a very limited vocabulary. However, many authors (e.g., Burningham, Lionni, Lobel, and Minarik) have created memorable stories with very few words. Fortunately, most beginners are pleased simply to be reading successfully, and seeing their competence increase daily. If this *isn’t* happening, children will begin to “tune out” of reading instruction. Ensuring child success involves using reading materials that are closely geared to the child’s growing print vocabulary and developing interests. This is what good “basal” readers provide.

Similarly, as new oral language skills and vocabulary are introduced, the children need opportunities to consolidate these with other stories and with discussion activities. Children can also take “consultative” roles in oral language work sooner than they can do so with print. For example, Annemarie Palincsar has described effective “reciprocal teaching” (in which students adopt teacher roles) of oral comprehension strategies with first grade pupils.<sup>47</sup>

Once past the *beginning* period of reading, direct or initial instruction of sight words prior to reading them in texts should become less necessary. As children acquire a print vocabulary and decoding skills, and build up the context of what is being read (through knowing 90-95% or more of the words in the text) they become increasingly capable of recognizing and/or defining the remaining words. However, this is not the situation of a beginning reader who can identify 30 or 40 print words and is confronted by a 50 word text including 10 or 20 words he/she can’t recognize in print.

## **Appendix B contains suggestions about acquiring and consolidating literacy skills.**

As children acquire larger print vocabularies, and become increasingly capable of identifying unfamiliar words using decoding or “phonic” skills, children need to “consult” about what they’re learning. Increasing attention should be focused on strategies for understanding what is read. Similarly, the focus of writing instruction should shift to generating readable language (narrative, instructions, letters, etc.). Children should discuss their understanding of what is read, adopt “teacher roles” in assisting others both in understanding what is being read and in the reading process itself.<sup>48</sup> We have already mentioned that consultative activities can be introduced even earlier with oral language skills. In general, children need some opportunities to operate in situations where they have to put into words what they are learning *about* reading and *by* reading.<sup>49</sup> The same is true of writing (for example, editing activities), although this consultative level of performance may come somewhat later for writing than for reading. The effect of these “consultative” activities is that the children come to *own* literacy skills and strategies.

Finally, teachers should create opportunities in which children can *apply* their reading, writing, and speaking skills as they pursue other goals. Children who “own” their literacy skills can do this. Typically, “project” or “theme” work has application of literacy skills - *including oral language skills* - as a goal. Other “application” work includes literature discussion groups, “pen pal” work, drama, formal debates, school newspapers, “publishing” books, and the like. However, in our observation, children in the less-skilled majority of a class often make little *independent* use of their literacy skills during such activities. By third grade or later, it is particularly important that all or most children be placed in situations in which they are called upon to use their literacy skills in authentic ways. **Appendix C contains suggestions about applying literacy skills.**

In summary, effective teaching involves several different kinds of activities, some of which are primarily teacher-directed, and some of which are directed jointly by teachers and children or primarily child-directed. *This results in shifting responsibility for carrying out newly learned skills from the teacher to the child, even while additional skills are being introduced by the teacher.* In reading, many skills must be initially introduced by the teacher, and opportunities for children to consolidate these skills must be provided using carefully constructed reading materials. As skills (including a print vocabulary) become consolidated, the children can take an increasingly active role in understanding and using what is read, and in helping other (usually younger) children with their reading. Thus they come to “own” their literacy skills.

**Appropriate Materials for Literacy Acquisition.** In Ontario, there has recently been great resistance to the use of reading materials which are designed to match children’s increasing reading abilities. This applies to the use of “basal” readers<sup>50</sup>, sequenced spelling-to-sound or “phonics” materials, and reading and writing activities including “worksheets”. Any or all of these can be appropriate or inappropriate for a child depending on their content and the *match* between the reading or instructional material and the child’s learned abilities. However, it is much easier to match children’s skills to teaching materials that follow approximately the sequence of skills (print vocabulary, decoding skills) that the children are being taught.

Well-sequenced reading materials permit effective teaching that includes appropriate acquisition, consolidation, and consultation activities. New material (print vocabulary, decoding principles, punctuation, comprehension strategies, etc.) is systematically introduced. *(If words that are not in the child’s spoken vocabulary are being introduced, these can also be addressed.* This is especially important from grade three on.<sup>51</sup>) Following any needed initial instruction, the children can consolidate newly introduced and previously introduced print vocabulary as they successfully read text. While doing so, they may be assisted by older children who are familiar with what the younger children are reading. Other exercises and materials can be readily supplied because the teacher knows what the children have mastered, and what they’re working on at present. At the same time, children can consult with each other about the meaning of what they’ve read, especially with material which poses few word recognition problems for them. The children can also assist (consult with) younger children, just as they may have been assisted by older children.

Well-planned sequenced reading materials are not absolutely necessary for effective reading instruction, but it is much easier (and hence more likely) that effective instruction will be provided



when such materials are used.<sup>52</sup> We do not mean that *only* reading series and related materials should be used in a comprehensive reading program. If children are to begin to *apply* their literacy skills, they must go beyond their initial instructional framework.

Overall classroom time devoted to literacy should include time for non-narrative reading, especially as children begin to develop independence in their reading skills. Books on a wide range of topics and other reading materials (e.g., manuals, model instructions, recipes, etc.) should be available in the classroom and through school libraries. However, children and teachers need some degree of sequence in complexity of reading material to ensure that progress is made in becoming literate. **Appendix D contains suggestions about appropriate literacy materials.**

**Instructional Implications of Diversity in Normal Reading Development.** Because there are substantial differences in when and how fast children will progress in becoming literate, teachers must be prepared to instruct children with a wide range of achievement in reading and writing. For practical purposes, *we suggest that teachers can reasonably expect to deal with children who differ by three “grade levels” in reading achievement* - if “grade level” is taken as the *median* level of achievement of children in a grade. In the primary grades, this means everything from non-readers to independent readers. *In grade four and above, teachers must expect a significant number of children who are still unable to read everything they can understand through speech, and be prepared to help these students improve their basic reading and writing skills.* Even in high school, teachers cannot assume that their students have reached a level of literacy which permits them to read all texts with understanding.

There is also evidence suggesting *that children whose start in reading is slower or delayed can profit from more rapidly-paced instruction* than is provided in many classrooms.<sup>53</sup> The recent experience of Shany and Biemiller in moving at-risk inner-city Toronto third and fourth grade children through several grade levels of readers in a third of a year is consistent with these findings.<sup>54</sup>

The problems of slower-progressing readers are compounded by failure to continue to build *language* through reading.<sup>55</sup> We have argued that primary teachers must be prepared to instruct children making progress at varying rates. It is important that *oral language* progress not be restricted to reading progress. We believe that Ontario *primary* teachers would agree with us about the importance of language development independent of reading development. Note that this means providing some classroom time in primary grade programs that is devoted to building oral language strength.

*Junior* level teachers are often unprepared to deal with children who continue to need basic reading instruction. If we follow the rule of thumb that teachers must be prepared to teach a “three grade range” (four grades in a split grade), third and fourth grade teachers must consider the teaching of less advanced reading skills to be a part of their *job*, rather than grounds for sending a substantial portion of their class for “special education”. This means accepting the reality that a significant proportion of children in the class are not yet up to reading children’s novels and school texts without assistance. (Many of these children are quite up to *understanding* such materials.) It also means that instruction which presupposes independent reading skill must be “scaffolded” to allow these students to participate. For example, children’s literature and texts should be available on tape<sup>56</sup> or with other forms of “reading assistance”. Third and fourth grade teachers must continue to provide basic reading and spelling instruction to bring children to the point where they can read what they can understand, and write what they know. Finally, some later elementary school children may have mastered reading skills but lack language strengths to comprehend material being read. Teachers must be sensitive to the need to help such children build language strength.<sup>57</sup>

**How Instruction Can Be Organized So That Students of Diverse Abilities Have Opportunities To Learn New Skills And Master Old Ones.** Providing learning opportunities which introduce new skills and strategies, consolidate recently introduced skills, and allow children to take increased responsibility for using skills and strategies requires systematic planning. This is especially true if teachers take seriously their responsibility to introduce new skills to students “where they’re at”. What is a *new* skill to one student, requiring careful introduction and consolidation is an *application* skill for another student.<sup>58</sup> If the latter student is to be challenged



and to learn new things, he or she will have to be introduced to more advanced skills. Robert Slavin and his colleagues have reviewed research indicating that some forms of ability grouping lead to increased reading and math skill learning by all achievement levels. In addition, Slavin has demonstrated effective results with at-risk children using a combination of ability grouped instruction and individual tutorials when needed.<sup>59</sup> Slavin stresses that such “differentiated instruction” is only appropriate when applied to specific hierarchical skills (e.g., reading, math), and when instruction is then actually matched to student achievement. He also stresses that children should *not* be ability-grouped for the majority of the school day.

Put plainly, this suggests that *some* literacy instruction should be “differentiated” to some extent by ability.<sup>60</sup> There are many different ways to differentiate instruction.<sup>61</sup> In Ontario, it has been our experience that the majority of primary teachers are using a combination of whole-class (undifferentiated) instruction and individual consultation. A minority of Ontario teachers continue to use more ability-grouped instruction. This approach becomes more common in the junior years.

Unfortunately, it is literally impossible to provide effective instruction to the majority of students using nothing but whole class and individualized instruction. There simply isn’t enough time in a week to individually introduce each child to complex skills (e.g., phonics, comprehension strategies) and simple skills (e.g., the reading or spelling of specific words). Even if the entire school week were devoted solely to literacy, there would be less than one hour of teaching per child, and this assumes that the remainder of the class would look after itself for seventeen or eighteen hours! In reality, we suspect that few children receive as much as fifteen minutes *a week* of individual teacher contact related to literacy. (This would mean that a teacher with 25 students was spending over an hour a day with children in consultation about reading and writing while the rest of the children were working on their own.) Conversely, whole-class instruction inevitably bypasses slower learners while delaying the progress of those who already have learned the skills currently being taught.

We suggest that teachers need to organize times when groups of students can (a) acquire new skills and strategies which *the children in the group* need, (b) consolidate those newly acquired skills and previously learned skills through reading, writing, speaking, and appropriate follow-up activities, (c) consult with others about reading, writing, and what they have read and written, and (d) apply their literacy skills in authentic tasks. Grouping of students would differ as these different needs are addressed. Acquisition learning times might be mainly flexibly<sup>62</sup> ability grouped. Periods for consolidation of skills might include a mix of more and less skilled children. Consultative activities require either similar children of similar ability, or children in consultative roles who are *more* skilled than others who may be younger. In application settings, *each* child sometimes needs a responsibility she or he can fulfill. *Teacher* time during literacy-oriented time blocks may be more concentrated on working with groups on the acquisition of new skills, while *child* time during these blocks would include substantial periods for working alone or with classmates on consolidation of and consultation about skills (including assisting others — either in or out of their classroom). Teachers and children might work together around projects or themes using literacy skills. We suggest that in grades one to three, *children* spend at least three hours a day on literacy-oriented activities (reading, writing, and oral language), *in addition* to themes or projects. Teachers should spend *at least* the same amount of time on literacy instruction. In junior grades, a greater proportion of time might be incorporated into project-centred activity as the children acquire sufficient skills to make realistic applications in projects.

A great deal more could be said about organizing classrooms for effective instruction. The basic point is that teachers have a responsibility to teach as many as possible of their children to become effective independent readers and writers. Present practices in Ontario are falling short of this goal.

**How We Become Literate: Summary.** Instruction in the code that links print and speech is necessary for some children if they are to become able to understand language through print as effectively as we understand language through speech. For other children, such instruction is often helpful. Effectiveteaching of oral language, the print-speech code, and reading and writing strategies involves a combination of *direct instruction* of new skills and strategies, *well-designed practice*, student

*consultation* about the content and the processes of reading and writing, and *application* of literacy skills in contexts that matter to children. The use of some well-sequenced vocabulary-controlled reading materials renders effective teaching more feasible. Normal diversity in reading achievement means that teachers must be prepared to teach children who vary by at least three “grade levels”. Literacy programs which ensure that all children make progress in acquiring new skills as well as becoming proficient in applying their skills will probably involve *some* ability grouped instruction along with practice, consultation, and application settings. A teacher may spend more time providing direct instruction of new skills (to all reading groups) than any one child spends receiving such instruction.

## **Recommendations for A Provincial Policy on Literacy**

**1. Recognize the need for increased focus on developing oral language competence during the primary years as a necessary component of “literacy” development, and continued awareness of the distinction between oral and print language competence through the junior years.** This will not only involve incorporating oral language competence goals in policy statements on curriculum, but also ensuring that adequate assessment tools are available to monitor oral language growth, and to separate oral language problems from print-related problems in diagnostic assessments.

**2. Recognize the importance of mastering the code that links print to speech - this really is a *necessary condition for becoming “literate”*.** (Virtually all reviews of scientific studies of beginning reading and of reading difficulties come to this conclusion. Recent examples include Chall, 1983; Perfetti, 1985; and Adams, 1990a). It is our perception as Ontario educators that currently a substantial portion - probably a majority - of teachers in Ontario believe that direct phonics instruction is *not* approved by the Ministry of Education. Whether this perception is correct or not, we believe it is time for the Ministry to be clear that direct phonics instruction has a place in Ontario education. Many Whole Language writers (e.g., Routman, and Wells) also support the inclusion of directed phonic cuing activities in the teaching of reading (see Appendix A).

**3. Recognize the necessity of planned sequential materials (e.g. reading programs and other materials designed to assist learners to gain competence) as *part of a complete literacy program*.** As noted in a recent resolution of the Canadian Psychological Association,<sup>63</sup> currently approved books for purchase by Ontario school boards (Circular 14) include few basal series with vocabulary lists, nor any reading series with an explicit phonic focus. This makes effective reading instruction more difficult than it need be for some teachers.

**4. Develop or adopt realistic, *objective* assessment procedures which can be carried out in reasonable amounts of time, to be used in conjunction with more time-consuming individualized assessments (e.g., miscue analysis, Benchmarks).** Note that using well sequenced reading materials can accomplish much of this goal. There has been a great deal of resistance in Ontario to “objective” or “standardized” assessment of reading skill. We believe that avoidance of reading assessment is partly responsible for the current low performance of Ontario children in reading. It is true that standardized assessments yield low scores for children with poor reading *and language* skills, whether due to environmental (SES, ESL) or personal factors. We do not believe that avoiding this reality is an effective way to help these students.

Tests should be used to provide an independent yardstick of children’s progress. Where test results differ markedly from teacher’s perceptions, it is important to review the child’s performance, not dismiss teacher or test findings.<sup>64</sup> It is also important to avoid using standardized test results to compare classrooms or schools. When classroom-administered tests are used to evaluate teachers and schools, there is considerable pressure to improve test scores rather than children’s achievement. Such comparisons simply create incentives to distort test results.<sup>65</sup>

We suggest that currently available Canadian standardized tests are quite adequate for monitoring progress in reading, and for establishing differences between Ontario students and students from

other jurisdictions. While it is doubtless possible to improve on these tests, we urge that Ontario educators not avoid unwanted comparisons by insisting that new tests are needed before a testing program can be implemented. We see no problem in reporting results for recent immigrants separately from those for children who have been in Canada since kindergarten. The presence of recent immigrants should not be an excuse for avoiding testing.

**5. Undertake to provide effective guidelines and courses for pre-service and in-service teacher training to ensure that the preceding recommendations *can* be implemented by teachers.** While we are aware that the Ministry of Education has been moving away from a focus on “specialist’s certificates”, we believe that some form of “upgrading” course is needed to re-introduce primary and junior teachers to methods of direct reading instruction, differentiated instruction, language support, and literacy assessment. Similarly, the Ministry should ensure that new candidates receiving interim Ontario Teacher’s Certificates have had a similar specific course on “literacy” programs (teaching reading, writing, and oral language) as an introduction to methods of teaching and assessing literacy.



## Appendix A

### Some Suggestions Regarding Phonics Instruction

Various approaches have been designed to help children learn the orthographic code of the language and the relationships of spelling patterns to sound patterns, from direct teaching instruction through instruction that is embedded in the reading of authentic literature (Stanovich, 1993-4).

Some students may be disadvantaged when certain knowledge and skills expected by teachers are not made explicit in their classrooms. Many whole language proponents explicitly state that skills (spelling, punctuation, knowledge of letter-sound correspondences, etc.) are an important part of a whole language literacy program. For example, Kenneth Goodman has recently published a book, *Phonics Phacts*, on this subject (Goodman, 1993). However, some teachers and consultants may inadvertently be sending contradictory messages about the teaching of letter-sound decoding and sound-letter encoding skills in whole language practice. We need to describe our approaches to literacy in terms of long-term goals for literacy learning, rather than labelling a particular practice (Rhodes & Dudley-Marling, 1988). The question for teachers is not *if* phonics should be taught, but rather *how* and to whom phonics could be taught meaningfully in an interactive, meaning-getting process. For successful readers, letter-sound coding is a necessary cuing system. The object of phonics instruction is to help children to notice orthographic patterns in words and to use those patterns to recognize other words. When using effective phonic strategies, the child has to look closely at patterns in words. Through learning these patterns, children learn to recognize words efficiently. Some direct instruction of letters and sounds can show children how to use word pattern knowledge to unlock words in print.

Effective teachers are aware of the need for drawing children's attention to words and letter combinations, and are adept at offering children strategies for generalizing principles of sound/letter correlations.

"Children cannot become skilful decoders by memorizing generalizations or rules. For neither the expert nor the novice does rote knowledge of an abstract rule, in and of itself, make any difference. Rules are useful only as far as they pertain to experience. Rules are intended to capture the patterns of spelling. But productive use of those patterns depends on relevant experience, not on rote memorization. Phonics rules and generalizations are, at best, of temporary value. Once a child has learned to read the spellings to which they pertain, they are superfluous." (Adams, 1990b, p. 83)

It is possible to overdo the teaching of phonics. On the other hand, some children do not pick up the alphabetic principle through simple immersion in print and writing activities, and will need explicit instruction. We need to say, simultaneously, "Some teachers overdo phonics" and "some children need explicit instruction in alphabetic coding."

Children who can recognize the letters of the alphabet and are familiar with their function are better prepared for reading. They have learned the names, shapes, and sounds connected with letters through games, songs, books, and print activities that drew attention to the significance of letters (Freppon and Dahl, 1991). Similarly, we need to call attention to sounds and words that students will need for reading and writing. We can choose large format books with phonics patterns and rhyming words that can be highlighted.

Teachers can draw attention to the order of letters in words, helping children to examine common patterns in English through sounding out words, and showing similarities between words. Children will benefit from analyzing a word they have discovered in the context of a meaningful language pattern. With further experience, they will be able to apply their independent word-attack skills to longer and more complex words and analyze them for triple blends, root words, prefixes, suffixes, etc.

Teachers must help children develop fluent word recognition skills so that when reading, children can attend primarily to comprehension and meaning-making. Children develop fluent

word recognition skills through extended practice at reading words in context and through repeated readings of the same text. When children begin to use orthographic patterns in words and recognize words easily, they can move from direct phonics instruction to spending more time reading and writing. Many children learn phonics best after they have already begun to read, intuitively making sense of the generalizations of phonics. When phonics is isolated as the only or main method of teaching, students may be prevented from utilizing all other meaningful cuing processes. Reading then may be viewed as a word-by-word process which can be inefficient and frustrating.

There are various matching activities that also help children attend to the print of a familiar text. For example, children can list words that begin or end the same way. Individual word cards with important words from a selected text can be created. The children each bring a card to a pocket chart, covering up the matching word. A number of other techniques for calling attention to print can be incorporated into games, such as Bingo and Concentration. The *Bridge Reading Program*, published by OISE, incorporates a number of such games along with a well-scaffolded approach to introducing to print children who are experiencing difficulties building a print vocabulary.

The teacher can show how familiar patterns and words can be applied to figuring out new words. Choosing a word the student knows, the teacher can use it to guide the child in reading the unknown word. The teacher may call attention to key words that begin alike, or invite the child to locate words that begin with the same consonant sound(s) as a certain word found in the selection. Teachers can call attention to patterns that often occur in the middle of words, to the rhymes, or help children to find words that end the same. Gaskins et al (1988) provide a particularly effective instructional approach for using patterns and words to identify new words.

**Phonics Charts and Booklets.** Making enlarged phonics charts is an appropriate learning activity for students. As the need arises in the context of reading and writing, the order of sounds taught and the words used as examples are determined by the teacher and children. Phonics charts can be posted around the room for children to refer to and add to. In the kindergarten classroom, phonics charts may be made with pictures from magazines with the word written next to each picture. Some kindergarten and first grade teachers also have students keep their own sound and letter books in which students draw or paste in pictures to represent sounds for letters (Routman, 1991). Students can keep lists of words from their reading that illustrate particular letter-sound combinations. These booklets can serve as personal phonics charts. Features and words noted in the text can be reinforced with enlarged-print word cards, sentence strips which may be cut apart and reassembled, and charts of word-family patterns. Children can build up a box of word cards indexed by letters of the alphabet (Hill and Gale, 1991).

**Invented Spelling.** Watching young children begin to write has shown us that while *phonics is only one of several sources of information used in reading, it is the first and major skill of spelling words that are not known from sight*. The young child who has some instruction in how to “sound out” words in order to spell them not only develops detailed knowledge about the sound-symbol relationships which play a large part in our spelling system, but also learns strategies to use in word construction. Even more important is learning the concept that spelling is a skill of *building* as well as one of memorizing. This can give the writer an appreciation of what the task really is, confidence to try new spellings, and power to make reasonable attempts. As a side effect, the child who has struggled to construct words through phonics can use this information automatically while reading. By experimenting with print, children are learning the rule-governed nature of sound-letter correspondences. Invented spellings show that the student is learning phonic relationships (Cunningham and Cunningham, 1992).

**A Phonics Sequence.** The following suggested sequence developed by Routman (1991) may be helpful in deciding where to place emphasis in the early grades.

1. The student should have the following *sight* vocabulary:

my	jump	cat	five	sing	and
big	like	in	it	run	make
look	up	at	can	car	old
down	will	met			

2. Teach what *rhyming* words are.

3. Teach initial consonants b,c,d,f,g,h,j,k,l,m,n,p,r,s,t,v and w.

4. Teach how to substitute initial consonants.

5. Teach the initial digraphs sh, th, ch, wh.

6. Teach the initial blends br, cr, gr, pr, tr, fr, dr, bl, cl, fl, gl, pl, sl, st, sk, tw.

7. Still using the original sight vocabulary list, teach the final consonants b,d,g,n,m,p,t

8. Teach the final digraphs sh, ch, th.

9. Teach the final blends mp, nt, nd, st, ft.



## Appendix B

### Some Appropriate Acquisition and Consolidation Activities

**Group Reading.** In group reading, the emphasis is on developing oral fluency in reading and encouraging the students to make sense of the print through their developing strategies (Hoffman, 1987). During oral reading, the teacher is able to guide the child in the predicting, confirming, self-correcting process.

Reading groups convene for approximately fifteen to twenty minutes each. As the Reading Specialist, I go into the classroom or work in a small room adjacent to the classroom. So, with three teachers (the two first grade teachers and myself), the entire time devoted to six reading groups is about 40 minutes as each of us meets with two groups consecutively. Independent work time is about 20 minutes for each student and includes the time a student is not in reading group. Direct instruction time is maximized in this manner. (Routman, 1991, p. 76)

Instructional time in a group is spent reading a predictable book with continuous, meaningful text, even for the lowest-ability readers. Many stories are read at the same level of difficulty so children can develop and strengthen their strategies along with their confidence and fluency. Group conferences can be held with students reading the same text or with students encountering difficulties in their reading or writing, who require a planned strategy lesson.

In addition to heterogeneous grouping, it is also important to meet with the student or a small group of students who are experiencing difficulty reading the common text. While heterogeneous grouping works well for discussion and collaboration, it is still our job to teach students at their instructional level. We need to take time daily to guide students in figuring out unknown vocabulary, attacking new words, integrating all cuing systems, and practicing reading for fluency. (Routman, 1991, p. 78)

Students can then begin to assume responsibility for their reading and move gradually towards independence.

**Repeated Reading.** Repeated readings of a book can assist the beginning reader in joining in the reading. As children read words more fluently, they become more able to concentrate on meaning. Memory for text may play a significant part in reading with emerging readers. When moving through a series of carefully graded readers, children need to process each story several times (Clay 1973, p. 104). The degree of fluency and connectedness required for “real reading” is dependent on the ready recognition of most words in the text (over 90%) and on a sufficient level of text predictability for the beginning reader to confirm that her reading makes sense.

**Shared Reading.** Using text in a big book, a chart, or a projected visual for shared reading, allows the teacher to build on preschool experiences with print, and gives the children immediate success in their reading. The use of repetition, refrain, rhythm, rhyme, and repeated syntactic patterns applies the children’s past experience with oral language to the task of reading. As they hear and see a well-known selection repeated, they begin to synchronize their voices with the print.

The teacher can give children opportunities to select specific words or letters, match words, find words with similar beginnings, or recognize frequently repeated words or phrases. Teachers must help children to know what to expect from the print, to give them “sufficient prior knowledge of what they are expected to read” (Smith, 1986). Books that use simple patterns from one page to the next allow children to participate in the print experience on the second or third reading. By using a sliding mask (a cardboard window) to cover word parts or whole words in a cloze procedure, students can predict possibilities and alternatives, confirming or revising their predictions based on the visual evidence and prior knowledge (Pinnell, 1989).

## Appendix C

### Some Appropriate Application Activities or “Authentic Literacy Events”

Children require periods in which they can *apply what they know for purposes they value*, including use of reading and writing as part of other projects. The ways in which children encounter print in the first years of school may determine their view of reading and writing for the rest of their lives. Classroom experiences with printed words should be a natural part of the play and learning that arise from the need to communicate. Children who talk, model, paint, paste, and draw are already using codes and symbols to represent thought. Children must recognize that print is meaningful, that print embodies thought, and that written language can help them make sense of their experiences.

Language-based teaching capitalizes on what children can already do with language and extends literacy as part of a natural process. In the language-based classroom, the environment is full of print: signs, chart stories, instructions, catalogues, TV guides, posters, sports cards, books, and magazines. When children see their names around the room, on their belongings, on charts, and on bulletin boards, they become aware of written messages and how they help us communicate, give us information, direct us, etc. They notice the teacher using print - on memos, lists, and charts. Print becomes an active force in their lives, as they dictate their stories to others or write them with their own invented spelling. They experiment with the forms they need for various functions of writing - lists, signs, captions, letters, stories, and journals. As the teacher reads aloud to them, the children experience the power of print and the joy of narrative. They grow into seeing themselves as readers as they join in the shared reading of texts they can follow, listen to older children read aloud, choose what they want to read at some times, and read assigned texts with a group at other times. They grow into seeing themselves as writers as they keep private journals, engage in group record-keeping, and reflect in print on their own pleasures, concerns, and clarifications so that others may read their thoughts. They learn to revise their writing so that readers can understand what they want to say in print. This helps move them toward the use of conventional spelling and punctuation, and control over form.

Through all this activity, teachers help the children grow metacognitively - in understanding what they know about how language works and how they can manipulate it. They become aware that they can rely on print to carry a message. They discover, subconsciously at first, that print uses particular sequences - a book from front to back; a page from left to right and top to bottom. The message is revealed line by line, word by word, and letter by letter. The style of print and the punctuation give clues to intonation and meaning. Pictures can be used to predict or illustrate what the print has to say. Word attack strategies can help in making meaning from text. Children see how stories, poems, lists, and instructions “work” as they absorb the flow of language and the internal patterns and structures.

Teachers must find ways of working with children that support these developing understandings, so that emergent readers learn how print functions. Children need to understand that different types of reading material demand different styles of reading. As they become more fluent and experienced readers, they will be willing to take on more extended and more challenging books, and become more critical of what they read.



## Appendix D

### Additional Notes on Literacy Materials

The availability of a variety of reading and writing materials invites students to become involved as readers and writers. A variety of reading materials encourages them to read for different purposes. A range of writing materials, and the time to use them, encourages students to write frequently for different purposes. The kinds of materials teachers select also play an important role in demonstrating the purposes of reading and writing to students.

Literacy materials include big books, sequenced series, trade books, taped books, workbooks and black-lined masters, games, and computer programs. The books selected for emergent readers must support their reading growth. Their comprehension of the text is determined by the ease with which they are able to perceive words. Successful word recognition promotes independence in reading and supports the understanding of the ideas in the text. The degree to which this is true is emphasized by Adams (1990b) who says that to maximize achievement, children should be given texts that they can read orally with 90-95% accuracy. Waterland (1985, p. 26) writes:

In other words children should know what they are going to read before they read it. This is not the same as teaching the words of the first primer on flash cards so that all are known before the book is tackled. It means letting children hear where the story is going and why, so that they can predict the sense and the language. Yet, somehow, there is an uncomfortable feeling that this is “cheating,” that children ought to tackle a text cold or they aren’t really reading. This is like saying the toddler isn’t really speaking when repeating the name of something after us, or chanting a nursery rhyme. It is the firm expectation of what is likely and possible that is built up by this approach. Once children know a poem or story it is surprising how quickly they can locate its parts on a printed page and read it.

Reading in groups requires multiple copies of the same texts and the average classroom library cannot afford such duplication. This is where a reading series comes into play. A reading series works in balance with a large number of fine trade books at various reading levels in the classroom. Anthologies of carefully chosen materials can support a classroom reading program in a number of ways: children enjoy reading a well-chosen anthology of stories and poems, parents may relax if they know their child has “mastered” an approved text, children can follow common reading experiences with discussion and joint activity, they can read together chorally and share literary moments aloud with each other. Selections may be included in anthologies that are otherwise unavailable to children - fine stories that may be out of print, stories with hard-to-obtain illustrations by great artists, examples of the best in children’s literature. A literature-based reading series can provide teachers with supportive structures for developing phonics growth, along with suggestions for other follow-up activities, as well as other books and media to extend and enrich the themes begun in the anthologies (Jensen and Roser, 1987). Some reading series (e.g., *Impressions*) provide taped recordings of each selection in the readers.

Most currently available graded series designed in the natural language style contain fine material in a pleasing format . . . . It is really the uses to which such readers are put that destroys their impact for most children. We find that they fit naturally into a balanced programme and serve some purposes extremely well. They provide easy, unseen reading which is so important in developing the “I-can-read-all-by-myself” feeling, particularly if children are able to select some of their own material. A well-designed series has that refinement of gradation which makes such careful matching possible at any particular time, but the matching is soon destroyed if a whole group of children of different abilities is forced to progress through the series, willy-nilly. (Holdaway, 1974)

In addition, the classroom should contain a library of graded trade books and big books, as well as reading materials created by the teacher and the children.



## Endnotes

- <sup>1</sup> The authors wish to thank Jeanne Chall, Esther Geva, Jennifer Hardacre, Keith Stanovich, Hildy Stollery, Richard Volpe, and Ken Weber for their constructive advice on this paper. The authors take full responsibility for the content and any errors.
- <sup>2</sup> Anderson, Wilson, & Fielding (1988), Becker (1977), Chall & Jacobs (in press), Nagy & Herman (1987), and Stanovich (1986).
- <sup>3</sup> Loban (1976).
- <sup>4</sup> Case (1985), McKeough (1992).
- <sup>5</sup> Chall, Jacobs, and Baldwin (1990), Chall and Conard (1991).
- <sup>6</sup> Chall & Conard (1991)
- <sup>7</sup> Chall, J. S., & Jacobs, V. (in press). The reading, writing, and language connection. Prepared for a volume dedicated to Dina Feitelson.
- <sup>8</sup> Biemiller & Siegel (in preparation), Curtis (1980), Sticht (1979).
- <sup>9</sup> The sequential structure of phonemes in words is sometimes called “phonotactic” structure. The sequential structure of letters in words is called “orthographic” structure. Adams (1990a, especially chapter 6) discusses the importance of orthographic structure to learning to read.
- <sup>10</sup> Adams (1990a), Juel (1988, Stanovich, Nathan, & Zolman (1988), Willows (1991).
- <sup>11</sup> There is insufficient space in this paper to explore this technical point. Frank Smith (1969, 1972) was one of the first to emphasize the importance of acquiring the structure of printed language in order to read efficiently. Evidence summarized by Adams (1990) and others suggest that learning some of the print to speech code may facilitate acquisition of this structure. It is also possible that learning to read using an initially limited list of letters and sounds may provide a simplified orthographic structure and consequently facilitate its acquisition.
- <sup>12</sup> Evidence on this begins with Cattell (1885) and continues to the present day. Goodman’s famous 1965 paper made this point, as did Biemiller (1977-78). Perfetti (1985) gives some detail. Fischler and Bloom (1979) review research showing that most of the important facilitation occurs within a few words.
- <sup>13</sup> Guy Buswell was the first to demonstrate this in 1922. Miscue studies (e.g., Goodman & Burke, 1972; Goodman & Goodman, 1977) have provided a major focus on the role of context. However, as Biemiller (1979) and Blaxall and Willows (1984) have shown, *both* good and poor readers use context to facilitate reading *when overall error rates are low so that comprehension of the prior context is sufficient*. When this condition is not met, miscues of poor and good readers indicate a shift in strategy to decoding individual words. Analysis of reading speeds also indicates this. When reading highly unfamiliar material, good readers take as long to read the words “in context” as out of context (Biemiller, 1977-78).
- <sup>14</sup> Stanovich, Nathan, & Zolman (1988) among others.
- <sup>15</sup> Adams (1990a) chapter 13; Stanovich, Cunningham, & Feeman (1984).
- <sup>16</sup> See Wallach and Wallach (1979), Williams (1979, 1980), and Blachman (1987). Note, however, that in some cases, difficulties with phonemic awareness may reflect cognitive immaturity. In such cases, it may be more effective to address phonemic awareness in first grade, in conjunction with other reading instruction (Ehri, 1976).
- <sup>17</sup> Biemiller (1970), Barr (1972, 1974-75). Biemiller’s study found that poor readers tried to use context to identify words before they began to focus mainly on print. Barr’s (1974-75) study showed that most children can be induced to adopt a print-oriented approach from the beginning when phonics instruction was emphasized.
- <sup>18</sup> Biemiller (1977-78). There is a limit to the value of this “verbal efficiency” as Perfetti labels it. When children can read simple (e.g., grade 1 basal) text aloud at 200 wpm, further gains in “efficiency” have little relation to increased comprehension (Biemiller & Siegel, in preparation).
- <sup>19</sup> In Adams’s (1990a) chapter 11, she acknowledges that many children with strong pre-reading backgrounds are ready to profit from instruction with text by the beginning of first grade. None the less, these children also profit from a parallel focus on phonics and spelling, and from opportunities to apply their letter-sound skills in the texts they read. Less advantaged children are in greater

need of introduction to print in general (being read stories and shown how books work), and in specific (learning letter names, becoming phonemically aware, and beginning to understand the relationship between print and speech), either before or in conjunction with beginning to read text materials.

<sup>20</sup> Adams (1990b) and others. See later section in this paper on How We Become Literate.

<sup>21</sup> Biemiller (1977-78).

<sup>22</sup> This conclusion is based on a number of research studies recently conducted in Ontario in which groups of Ontario children performed below “grade level” on standardized test norms. Most of these studies were not primarily concerned with the normative levels of Ontario children. However, consistent reports that Ontario school children, *as a group*, perform below levels normatively established for their grade level are cause for alarm (Gregory, Earl, & O’Donoghue, 1993; Glasspool and Hutton, 1993; Nelson Canada, n.d.; Vandervelden, 1992). Additional information from a southern Ontario school board has been gathered by a doctoral student who is an employee with the board. The board has permitted us to refer to the data, but not to name the student or the board. These data show that roughly 60% of a middle to working class multicultural population score below the 25th percentile on a number of reading, decoding, and reading comprehension tests. (This student is working under the supervision of Dr. Keith Stanovich, at OISE.)

<sup>23</sup> The argument that variation in literacy progress reflects “normal” diversity in development rather than specific “learning disabilities” has recently been put forth by Biemiller (1993); Levine (1987); Shaywitz, Escobar, Shaywitz, Fletcher, and Makuch (1992); Stanovich (1986); and Willows (1991).

<sup>24</sup> Ausubel & Sullivan (1970), p 97.

<sup>25</sup> These figures are based on Fowler (1971), Durkin (1970), Becker and Engelmann (1974), de Hirsch, Jansky, & Langford (1966), and Jansky & de Hirsch (1972). More recent reviews of reading readiness (e.g., Coltheart, 1979; and Nurss, 1979) provide no evidence to change these conclusions.

<sup>26</sup> Cantalini, M. (1987).

<sup>27</sup> We should *not* be surprised by declines in performance. Not only have there been instructional problems, but during the 80’s and early 90’s, a steadily increasing number of American and Canadian children have been growing up in poverty. It is no secret that children growing up in poverty do less well than their more fortunate peers.

<sup>28</sup> Nelson Canada prepared a report for the Economic Council of Canada summarizing changes occurring when tests were normed in (1) 1966, (2) 1973, (3) 1980, and (4) 1987 (Nelson Canada, n.d.). (Another norming was conducted in 1991, but was unavailable at the time of writing.) From 1980 to 1987 there were small (2 “month” declines in reading comprehension at grade 4, 2.5 months at grade 8). Declines were larger over a longer period: 3 months between 1966 and 1987 in grade 4 and 7 months in grade 8. Similar results were reported in the U.S., where data from the National Assessment of Educational progress showed gains in the 70’s (as does the Nelson data), followed by levelling or declines in the 80’s (Chall, 1992). Chall attributes these changes to increased use of phonics instruction in the earlier period, followed by increased use of “process” or “Whole Language” in the 80’s. We may add that we will be very surprised if the most recent (1991) standardization of the Canadian Test of Basic Skills does not show further declines, based on information given in endnote 22.

<sup>29</sup> Slavin’s “Success for All” program explicitly incorporates phonics (Madden et al, 1993) as does Iverson & Tunmer’s (1993) phonic variation of Reading Recovery, and Hiebert, Colt, Catto, and Gury’s (1992) approach to “Title I” remedial education.

<sup>30</sup> Research on tutorial remedial reading programs is summarized in Wasik and Slavin’s (1993) review. However, Pinnell, Lyons, Deford, Bryk, and Seltzer’s (1994) recent study comparing Reading Recovery, a phonics-*only* alternative, a classroom group-instruction version of Reading Recovery, and a control group raises questions about the efficacy of Reading Recovery. Although substantial effects were reported for Reading Recovery with first graders immediately following the program, all effects had dissipated three months later. Interestingly, Pinnell et al chose not to provide descriptive data for this follow-up, although pre-test and immediate post-test descriptive data were provided.



- 31 Our main sources for this conclusion are Wasik and Slavin's (1993) review of tutorial programs, plus the findings of Gregory, Earl and O'Donoghue's (1993) Scarborough study and Hiebert et al's (1992) work with inner-city children in the U.S.
- 32 Shany & Biemiller (in press).
- 33 Palincsar and Klenk (1991) illustrate an effective early instruction method for language comprehension.
- 34 Abt Associates (1977), Becker (1977), and Stebbens et al (1977).
- 35 Biemiller (1993a), Dewsbury, Jennings, and Boyle (1983).
- 36 E.g., some systematic focus on phonics, use of controlled-vocabulary reading material for early beginning reading, daily reading instruction and practice.
- 37 Stanovich (1992) provides an excellent discussion of the nature of true *reading* disabilities.
- 38 Becker (1977), Hiebert, Colt, Catto, and Gury (1992), Iverson & Tunmer (1993), and Madden, Slavin, Karweit, Dolan, & Wasik (1993).
- 39 Stanovich (1986).
- 40 In a study of *all* children in the Toronto Board of Education, Wright, Kane, and Deosaran (1976) and Deosaran (1976) found that ESL children who had entered the system by kindergarten were indistinguishable from their English-speaking classmates by third grade. However, the later children entered the system after kindergarten, the greater the impact on their achievement relative to their classmates.
- 41 The usual references for this conclusion are Chall (1967/1983), Perfetti (1985), and Adams (1990a). The same conclusion was reached by Ehri (1992), Liberman and Liberman (1992), Stanovich (1992), Williams (1985), and Willows (1991).
- 42 For example, in the debate between Jeanne Chall and Kenneth Goodman held at the International Reading Association's annual meeting in Orlando, Florida in May, 1992, Goodman made no effort to dispute the facts about the effectiveness of code-emphasis instruction as set forth by Chall, preferring to discuss the philosophical position of the Whole Language movement and the motives of those who disagree with it. We infer from this that there is no substantive argument to be made for avoiding systematic phonics instruction in conjunction with text-based reading instruction.
- 43 Older children and adults may also "self-teach" new skills from written instructions or computer tutorials. In most cases, such "self-teaching" presupposes *literacy*.
- 44 This particular analysis of the learning process appears in Meichenbaum and Biemiller (1992), Biemiller (1993b), and Meichenbaum and Biemiller (in preparation). Similar analyses have been made by A. Brown and Palincsar (1989); Collins, J. Brown, and Newman (1989); Shuell (1990); and Azmitia and Perlmutter (1989).
- 45 It is clear that we do not need to overtly teach children *every* new skill or sub-skill needed for literacy. Most highly experienced readers can read complex "pseudowords" (e.g., **shoughage**) without having been explicitly taught *all* the letter-sound correspondences in the word. However, having some systematic letter-sound or "phonic" instruction facilitates the process of assembling other correspondences on our own.
- 46 There are a number of suggestions for language development activities in Biemiller and Doxey (1990).
- 47 Palincsar and Klenk (1991).
- 48 Palincsar and Brown's (1984) "reciprocal teaching" is a well developed example of this approach as applied to building comprehension strategies. The widespread use of "buddy reading" (older children paired with younger children) could also provide situations in which children explain what they know about reading. However, buddy reading is not always structured in this way, nor is sufficient training usually provided.
- 49 Michael Pressley et al's (1992) "transactional strategies instruction" illustrates approaches to engaging children in actively comprehending what is read.
- 50 We suspect that some of the interest in using child-chosen or "good children's literature" has stemmed from teacher boredom with traditional or other basal materials, especially when the same materials are used for several years. We suggest that the main criterion for materials should be effectiveness with children, not whether they excite the teacher.
- 51 See Chall, Jacobs, & Baldwin (1990), and Chall & Conard (1991).



- 52 Barr and Johnson (1991) particularly recommend the use of basals or reading series by *beginning teachers*.
- 53 Barr and Dreeben (1983), Chall, Jacobs, & Baldwin (1990).
- 54 Shany & Biemiller (in press).
- 55 Chall & Jacobs (in press), Juel (1988), Stanovich (1986), Willows (1991).
- 56 Our experience suggests that such tapes must be recorded at a slow rate (around 100 wpm) to allow children to *read* along with the tape, and thereby build their reading skills (Shany and Biemiller, in press).
- 57 Chall, Jacobs, & Baldwin (1990), Chall & Conard (1991).
- 58 Phases of learning in becoming independent were discussed on pages 20-24.
- 59 Slavin (1987), Guterriez & Slavin (1992) regarding ability grouping and non-graded programs in elementary schools. Madden et al (1993) regarding the nature and outcomes of the "Success for All" program with at-risk inner-city children.
- 60 The writers are well aware that this statement appears to contradict the Provincial "destreaming" policy. In fact, one of the writers (AB) is co-author of a submission to the Royal Commission on Learning suggesting, in essence, that before beginning a "destreamed" ninth (or tenth) grade, students should be brought to a level of literacy permitting them to participate effectively in "advanced level" courses at grade level. To some extent, this could be accomplished with remedial programs in the seventh, eighth (and possibly ninth) grades. In the long run, improved elementary programs would do much to make this goal possible. However, it is quite likely that students entering such a "destreamed" high school program would not all be the same age. The alternative - including non-literate students in "advanced" high school programs - would be counter-productive for the literate students, and would negate the assertion that all students are being taught at an "advanced level".
- 61 Good and Brophy (1987) provide an excellent discussion of the pro's and con's of differentiated instruction, along with useful suggestions for how this may be accomplished when necessary.
- 62 By "flexible" we mean groups that are often reviewed and regrouped.
- 63 Simner (1992).
- 64 This issue is discussed at length in Ontario study by Fair et al (1980).
- 65 Haladyna, Nolan, & Haas (1991), McGill-Franzen & Allington (1993), Smith (1991).

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**Restructuring Ontario Secondary  
School Education**

**Alan King**

March 4, 1994



**King, Alan.**

***Restructuring Ontario Secondary School Education. March 4, 1994.***

***(Restructuration de l'éducation au palier secondaire en Ontario), 4 mars 1994.***

This paper addresses four questions concerning the reorganization of secondary education in Ontario: (1) What are likely to be the most successful models? (2) What evidence is there that these models will be more successful than those in place for better marks, fewer drop outs, ease of transition to post-secondary education, training and/or work? (3) What are the major barriers to the implementation of these models, (4) What are the optimal actions for the Ministry of Education and Training, boards of education, and secondary schools to implement the optimal models? (5) What is a realistic time line for the implementation process?

The model proposed by King calls for increased emphasis on mathematics and science, including the upgrading of teachers as required, for Grades 7 to 9, increased career education and counselling, identification and support for special needs students, Grade 9 external testing program in English, mathematics and science, six core subjects and two exploratory subjects. For the secondary program, he recommends 21 credits and academic courses at two levels of difficulty, other courses at one level, well-defined work-related programs, and Grade 12 external testing. He recommends that the Royal Commission on Learning press for speedy implementation of the model he suggests.

\* \* \* \* \*

Ce document traite de quatre sujets concernant la réorganisation de l'éducation au palier secondaire en Ontario: 1) Quels seront les modèles qui auront les meilleures chances de succès? 2) Quelles preuves avons-nous que ces modèles connaîtront un meilleur succès que ceux qui sont actuellement en place, c'est-à-dire permettront-ils d'améliorer les notes, de diminuer le nombre de décrocheurs et faciliteront-ils la transition à l'éducation postsecondaire, à la formation ou au monde du travail? 3) Quels sont les principaux obstacles à la mise en oeuvre de ces modèles? 4) Quelles sont les mesures optimales que le ministère de l'Éducation et de la Formation, les conseils scolaires et les écoles secondaires devraient prendre pour mettre en oeuvre ces modèles optimaux? 5) Quelle sera la durée réaliste du processus de mise en oeuvre?

Le modèle proposé par Alan King requiert que l'on mette davantage l'accent sur les mathématiques et les sciences au niveau de la 7<sup>e</sup>, 8<sup>e</sup> et 9<sup>e</sup> année, y compris sur le perfectionnement professionnel des enseignantes et enseignants, le cas échéant, sur une meilleure formation au choix d'une carrière, sur le counseling, sur l'identification des élèves ayant des besoins spéciaux et le soutien à leur accorder, sur les programmes de tests externes de la 9<sup>e</sup> année en anglais, mathématiques et sciences, six matières de base et deux matières exploratoires. Pour le programme du secondaire, il recommande 21 crédits et cours académiques à deux niveaux de difficulté, d'autres cours à un niveau, des programmes liés au travail bien définis et des tests externes de 12<sup>e</sup> année. Il recommande aussi que la Commission royale sur l'éducation insiste sur la mise en oeuvre rapide du modèle qu'il propose.





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## INTRODUCTION

This is the second part of a contract with the Royal Commission on Learning. This paper is designed to respond to the following issues:

1. What model(s) of organization and program are most likely to be successful for the Ontario students, aged 13 to 19?
2. What evidence is there that these models will be more successful in terms of students' marks, retention in secondary school, and transition to post-secondary education, training and/or work, than the existing or other possible models?
3. What are the major obstacles (if any) to implementation of the recommended model(s)?
4. What are the optimal actions to be followed by the various levels of organization within public education—the Ministry of Education and Training, the various boards of education, and the secondary schools—in order to move toward recommended model(s)?
5. What is a realistic timeline for the actions described in #4 above, keeping in mind the necessity both to improve secondary/post-secondary educational outcomes for students and the importance of avoiding significant de-stabilization of the system?

This paper is not organized to respond directly to each of these questions but each has been addressed in some fashion in the discussion of key restructuring issues. I have taken three thematic approaches to deal with school organization. The first is concerned with the program structures in place designed to prepare students for post-secondary education or work. The second broad theme incorporates the mechanisms used to guide students into appropriate career patterns. Here we are concerned with how marks are used for decisions related to levels of difficulty, programs and, later, for admission to post-secondary institutions. Therefore, this part of the discussion also examines the role of external testing programs. The third theme is concerned with the relationship between school and the community, in particular the meshing of school programs with business and industry. I also elaborate on the constraints placed on the system by a number of powerful factors. These constraints, in some instances, can affect the implementation of programming that may have clear educational benefits but are not logistically, politically or socially appropriate.

## STRENGTHS AND WEAKNESSES OF THE CURRENT SYSTEM

In the discussion that follows in Section D (p.9) you will see that other countries tend to take a different approach to addressing the primary functions of secondary education compared to the approach in this province. In particular, sorting activities such as external testing programs and specialized schools tend to be much more precise. As a result, students and parents are more likely to understand the career implications of performance in school. In Ontario this sorting process is less obvious and educators are more inclined to emphasize a broad general education. We tend to do our sorting in the latter years of secondary school. We also provide many opportunities for students to change directions, recover, re-enter and graduate from secondary school than is the case in other parts of the world. There are advantages and disadvantages to each approach.

In comparison with other countries, far more Ontario students continue on to post-secondary education in colleges and universities. As a result much specific vocational preparation takes place at a post-secondary level. Moreover, because most students retain post-secondary education aspirations until near the completion of their secondary school programs, the large numbers that proceed directly into the labour market take very little in the way of vocational preparation with them. In essence, we create a large pool of secondary school graduates who do not go directly to

post-secondary education and have little in the way of marketable skills—in addition to the substantial number of dropouts who have virtually no work-related skills as a result of their secondary school experience. It is not surprising that education critics see this as a fundamental problem and then assume that the solution is to introduce an array of work-related programs that are directed to these latter two groups of students. A recent report, *A Lot to Learn* prepared by the Economic Council of Canada, illustrates this position:

Many Canadians are not well served by their education system. For example, secondary school program are heavily geared to the needs of the 30 percent of students who will go to university or college. Most of those students will graduate and find interesting jobs and a decent income. But what about the other 70 percent of young Canadians. (p.47, Economic Council of Canada)

The problem is that these groups are not really formed until the final stages of secondary school and then it is too late to develop appropriate programs. If, as a general principle, you wish to delay decision-making regarding career until late in a student's secondary school experience and at the same time you want to use school marks to sort out the non-university and non-college attenders, then it will be necessary to introduce relatively short-term (one- and two-year) programs focusing on vocational preparation; but, it will not be possible to offer as many streams as exist in European countries.

In Section D (p.9), I discuss the school-to-work interface that is so efficient in many other countries and so weak in Ontario. Currently, it is virtually impossible to develop effective secondary school-to-work programs here. It is not helpful to look for guidance from models of school-to-work programming operating smoothly in such countries as Germany and the Netherlands. Their specialized schools and formal streaming are socially inappropriate for this province: specialization raises issues of discrimination and stereotyping of ethnocultural groups; the absence of formal ties between education and business/industry limits programming; and, students will not select vocationally-oriented programs in sufficient numbers so as to make such programs viable in most Ontario secondary schools.

Testing issues are discussed in Section F (p.19), but it is useful to note that the extensive external testing used in other countries provides the data they use to sort their students. In Ontario, we have chosen to sift students gently over a long period and within a framework of support for educational advancement at later career stages. While this process may appear sloppy and inefficient, it does sustain hope and encourage upgrading. Our structures have evolved over a number of years and within a context of changing educational ideologies; nevertheless, they have served us well in one sense—our students tend to enjoy school more than students in most parts of the world. They do not feel the same strain associated with intense external testing programs and they tend to take on a sense of responsibility for their successes or failures.

## **LEARNING FROM RECENT RESTRUCTURING INITIATIVES**

The following is a brief summary of recent educational changes in Canada and other parts of the world. These experiences tell us a great deal about what will work and what will not. Perhaps, more importantly, we can see how powerfully universities and the parents who wish their children to attend university influence school programming.

### **1. The British Columbia Experience**

In the late 1980s British Columbia embarked on a massive restructuring of its educational system, called the Year 2000, as a result of a royal commission report. Many of the principles embedded in the recommendations of the commission were incorporated into the actual restructuring plan. The



program envisaged was remarkably innovative. It was built on the assumption that students learn at their own rate and optimum times exist when learning can be facilitated. To accommodate individual differences, it was felt that programs should be truly individualized and not restricted by time. Grade designations were removed and a flow of learning extending from year 1 to year 10 was assumed. The final two years of secondary school were more specifically designated as preparation for the next stage of life whether it be university, community college or work. An important component of programs in these two years was to be real-work experience.

The individualization of learning programs is not unique. It is part of the educational ideology of the 1970s and a number of Canadian schools adopted variations of American models. The one that lasted the longest at the secondary school level was the Trump Plan which still exists at Bishop Carroll School in Calgary and in modified forms in a few other schools including the secondary school in Cochrane, Ontario. This type of programming is viable as an alternative to the regular school system and can function effectively as such when it serves a relatively homogeneous population; for example, one preparing for university, but it is not viable as the basic model of delivering secondary education.

Individualized learning models must be assessed not only on the basis of their effects on the quality of learning but also in terms of their social and political implications. The criticisms of the BC system did not intensify until implementation had extended into the middle school years. Parents became increasingly concerned about where their children stood in relation to their peers and confused about the meaning of anecdotal comments. Feedback on what the students were accomplishing was not considered sufficient for parents to start the process of career advising. Classroom management became an issue because of the great variation in student achievement that began to be apparent with some students moving much more rapidly ahead than others. Over time, this variation has the effect of stripping the motivation away from those achieving at a slower rate and, thereby, leading to discipline problems. Also, as they dealt with individual student progress, the teachers' classroom work tended to involve far more testing than had been the case in the past. And, of course, all this was occurring in a Canada-wide atmosphere of pressure for testing and increased accountability.

The public demanded changes in the new BC system and the government response was to re-institute grades and regular evaluation procedures, including the use of letter grades from grades 4 to 10. There was an effort to retain some of the original goals of individualization but within this context of grades, regular time blocks and regular reporting using letter grades, there will be little opportunity for these goals to be realized.

As well as individual learning, another major innovative component of the BC program was the expectation that every student in the last two grades of secondary school would have the opportunity for a real-work experience. The logistics of implementing such a massive school-to-work collaborative enterprise became clear as the time for implementation approached. Current revisions in the grade 11 and 12 program have removed this work experience requirement and substituted more classroom instruction regarding career opportunities.

Two years ago I had an opportunity to discuss some of these issues and point out the problems with a senior representative from the British Columbia Ministry of Education. It was clear that he was becoming less convinced himself about the practicality of the recommendations. There is much to be learned from the BC experience both in terms of the influence of the public and the capacity of the educational system to introduce major structural change. As you will see in the Section D discussion of school organization in other countries, common thrusts can be seen. Despite the fundamental differences from country to country, there are many basic commonalities in purpose and delivery. These systems must perform similar functions in each country and respond to similar constraints. While we will see efforts to change the direction, there seems to be a countervailing force to pull educational structures back into a similar model.



## **2. Alberta**

Alberta has recently gone through a number of restructuring initiatives. They have also been influenced by the learning outcomes movement (i.e., competency-based education or results-based curriculum) and the efforts to individualize student programs attempted by its next door province, British Columbia. They have tried to do this in a context of improved standards and extensive external testing. Alberta has had some success with student performance on international mathematics and science tests and has tried to build on this success with continued emphasis on curriculum reform and testing. However, this goal is not totally compatible with their efforts to integrate all students and to individualize programming. While there is clear support for the integration initiatives in the lower grades, from grades 7 up there is considerable evidence of strain. Part of this strain relates to the difficulty of determining where each student is, reporting this in a clear, straightforward manner to parents and the huge management burden on teachers. A close look at the province's efforts in the areas of "integration," "program continuity," "individual educational plans," "external testing" and "portfolio assessment" might help guide the Commission's deliberations.

## **3. School Choice Models**

In a number of other countries, but most notably the United States, a series of initiatives have been designed to provide parents with alternative models of schooling for their children. Parent choice or school choice is the theme under which these programs might be characterized. In its simplest form, this movement offers alternative schools in a school district. Schools might specialize in certain areas such as the arts, the sciences or the environment. They might offer different approaches to teaching, such as a disciplined setting focused on academic studies, or a more student-centred environment focused on personal growth. The school choice programs were designed essentially to deal with racial concerns and to provide access to quality programs for all young people. In Ontario we typically offer our students a choice of schools within a school board, but we do not deliberately set out to make the schools different and competitive with each other.

The United Kingdom has introduced a national program in which schools are encouraged to be diverse and to compete for students. This market model orientation has received strong criticism and the UK system is under considerable stress at the present time. Certainly it cannot be seen as a model that has been effective in achieving its goals. As a result of a review conducted in 1993 a number of changes have been proposed that have relevancy for the Commission's deliberations: a reduction in centralized curriculum; greatly reduced record keeping for teachers; more weight for teacher tests in comparison with external tests; and, earlier policy decisions from government.

Perhaps the most extreme version of the school choice model is the voucher system. Parents are granted financial credits or vouchers to pay for educational services at the school of their choice. An American entrepreneur has proposed to establish a set of private schools across the country which would guarantee certain educational outcomes and which would employ a variation on the voucher system for its funding. This project has been unable to meet its original funding goals and will operate only in a small number of cities which have contracted with it to deliver educational programs. Experiments using this model in the United States in the early 1970s had little success and it is difficult to imagine this project being successful. John Chubb presented his proposal in Israel recently at a special conference on school choice and I had the opportunity to describe some Canadian school choice programs and to critique his plan. My colleagues in Israel were not enthused by his proposal.

While it is unlikely that the Royal Commission will recommend a large scale implementation of the voucher system, the commissioners might be inclined to recommend greater choice of diverse schools and implicitly, not necessarily explicitly, encourage greater specialization of schools. There are some risks to such a recommendation which will be discussed in the later part of the report.

#### **4. SERP**

In Ontario, in the 1980s there was a major restructuring process undertaken for the secondary schools. The first phase of this was the Secondary Education Review Project (SERP). The recommendations of this all-sector group was refined into a document called ROSE, the Reorganization of the Ontario Secondary School System, which was then incorporated into the guidelines governing the delivery of educational programs, OSIS (Ontario Schools: Intermediate, Senior). The two elements of this reorganization that have the greatest implications for the current Royal Commission were the clear definition of the intermediate years from grade 7 to grade 10 and the effort to eliminate grade 13. The first of these has had some success although critics would argue that the grade 8/grade 9 interface is still a contentious area. The effort to reduce Ontario's five-year secondary school pattern to four was thwarted by pressure from the universities to retain grade 13 equivalent courses. And, of course, inflexible scheduling procedures employed by the schools has made it difficult to complete a full program in four years. Our survey of students at that time indicated that the majority of students would have chosen to complete secondary school in four years, but the reality has become five years for 85 percent of graduating students. And so grade 13 lives on under a new name, the fifth or OAC year. Students are only required to complete 30 credits to graduate but over five years they have 40 credits (five years x 8 credits/year) worth of course opportunities. Many have chosen to repeat OAC credits in order to get higher marks and/or take optional courses or spares and so the intent of reducing the norm of five years for graduation to four was not achieved.

One point that we can learn from the SERP aftermath is that it would be difficult to implement a reduction from the five-year norm for graduation in Ontario schools to four years. A number of factors must be dealt with including concern from teachers' federations about the potential loss of teaching jobs and the problem for post-secondary institutions in responding to a double cohort four years down the line when the graduates from the new program meet the graduates from the old program. SERP/ROSE/OSIS also tells us something about the time and strategies required in the consultation and implementation stages. At that time it was strongly argued that more time and support for teachers was needed to facilitate implementation of a reorganized structure. The Royal Commission on Learning does not have the time or resources that were available in the 80s. Ontario's educational system has become dependent on the recommendations of the Commission in order to deal with very specific issues, for example, what will follow the current grade 9 destreaming program. These expectations require a much tighter implementation schedule and a recognition of financial constraints.

#### **LEARNING FROM OTHER COUNTRIES**

In this section I discuss in general the organization of education in other countries, primarily European but also some Asian countries. The purpose is to identify common patterns and strategies used to deal with particular groups of students. It might be useful to summarize the most common organizational patterns.

1. The most common form of organization has six years of elementary school, three years of middle school or junior high and three years of secondary school or senior high. This is similar to the pattern employed throughout the United States and in many Canadian provinces.
2. Most secondary school programs are based on the assumption that students will complete the final year during their 18th year of age. This is also true in most Canadian provinces with the exception of Quebec and Ontario. Because students in Ontario normally take five years to complete secondary school, those who graduate with an OSSD are typically in their 19th year. Since Quebec uses a K-6, 7-11 structure, its students graduate in their 17th year. (A few other countries go to age 19, for example, Norway.)
3. The most common curriculum pattern in the middle years is one in which each student takes essentially the same program of courses. Some choice may be available in the latter year or



two related to the arts, family studies, business and technological education.

4. In virtually every country students are streamed in senior secondary school. In many parts of Europe this means separate schools but at the least into separate programs. Typically, there is an academic or university-bound route, a technology route which may or may not lead to higher education and a vocational route which does not lead to higher education. Both the latter routes are commonly linked to apprenticeship programs.
5. Almost all these systems have external examinations. National tests are typically administered during the last year of secondary school. These tests are used (often along with teacher marks) for post-secondary institution admission decisions. This evaluation approach is also becoming more common across Canada. Some school-leaving tests in other countries are administered in the final year of the junior high or middle school program and are designed to be used to determine admissions to particular senior high school programs or schools.
6. In most European countries mathematics and science programs are taught by specialized teachers typically commencing in the middle school program.
7. A vocational stream for slower learners is present in virtually every country. These students representing up to 10 percent of the student population are often segregated during the middle school or junior high school period and programs designed for them lead directly to work.
8. In most countries the proportion of students going on to university is substantially less than Ontario's figure of 26-27 percent of those who started in grade 9 (those who enter having been out of school for a year or more raise this figure to over 30 percent). The United States is the exception to this pattern. When Ontario's community college system numbers are added, Ontario's figures for students attending post-secondary educational institutions are higher than all other provinces and almost all countries in the world.

More details and some examples of these structures are provided below.

### **1. Special Programs for Low Ability Students**

As we have noted, most countries identify low ability students early in their school career, provide special programming under the generic term "special education," and then in their secondary school years provide a specific form of vocational education. These vocational programs focus on low-level occupations, often in the service sector, and are designed to facilitate the transition from school to work.

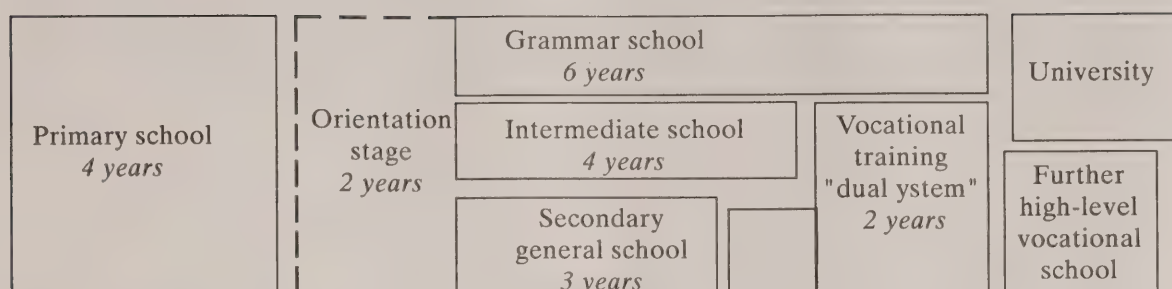
At the present time in Ontario, equivalent students would be those taking mainly basic-level courses. They represent about five percent of our student population and have conspicuously high dropout rates. Such students were far more likely to graduate when they were enrolled in special vocational schools than in basic courses in composite secondary schools but the stigma associated with such schools and the tendency for the schools to enrol students in greater proportions from certain minority groups has made them both socially and politically unacceptable. The risk, however, is that if we do not provide special-services for such students they are likely to drop out of our secondary schools in greater numbers. Educators throughout the world recognize that if low-ability students do not receive special programming, they are not only unlikely to remain in school but represent a real drain on government resources because of welfare and unemployment costs.

### **2. Specialized Programs/Schools: Early Streaming**

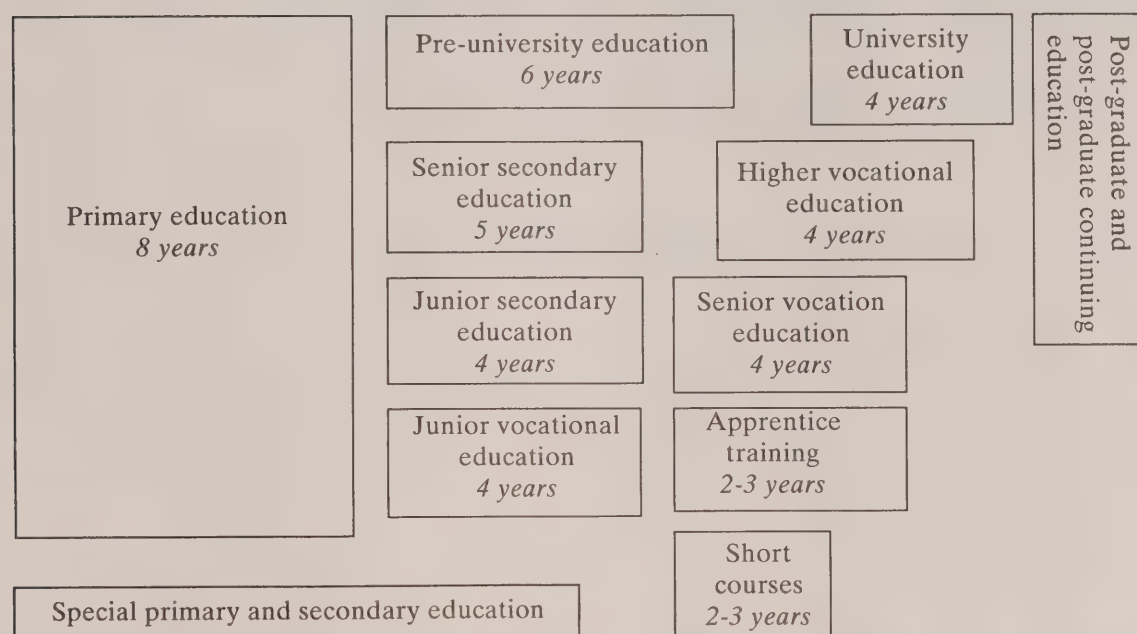
A substantial number of countries do begin to formally sort students quite early (between the ages of 11 and 13). Germany and the Netherlands are examples of this early streaming model (see Figures 1 and 2) which occurs at the equivalent of junior high school. Results on elementary school-leaving tests administered at the national level commonly contribute to the streaming decisions. Countries such as these are often used as examples of how to effectively prepare young people for the world of work.



**Figure 1: Educational model of Germany**



**Figure 2: Educational model of the Netherlands**

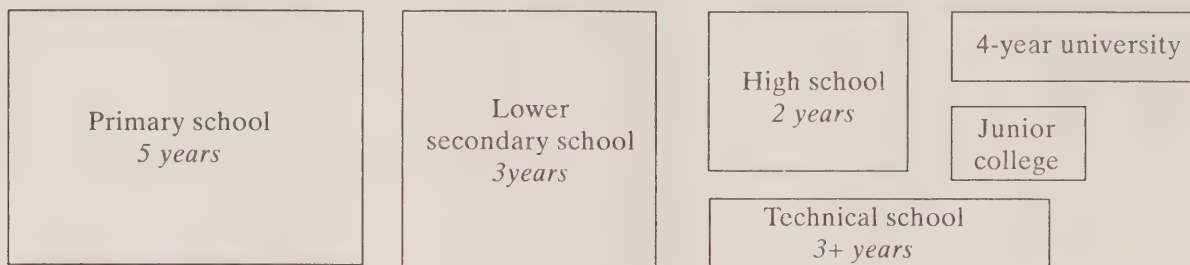


The tension among young people and their parents regarding these early sorting decisions is not well understood by those who see education as primarily serving economic needs. Also, early decisions are difficult to reverse later on as students' motivation improve and abilities mature. Stigma associated with choice of program or school is very real in these countries and the status of the university-bound route is unquestionably the highest and sought by all. The decisions regarding school or program are not taken lightly and are reflected in the tendency for students in Canadian schools to be happier with their schools.

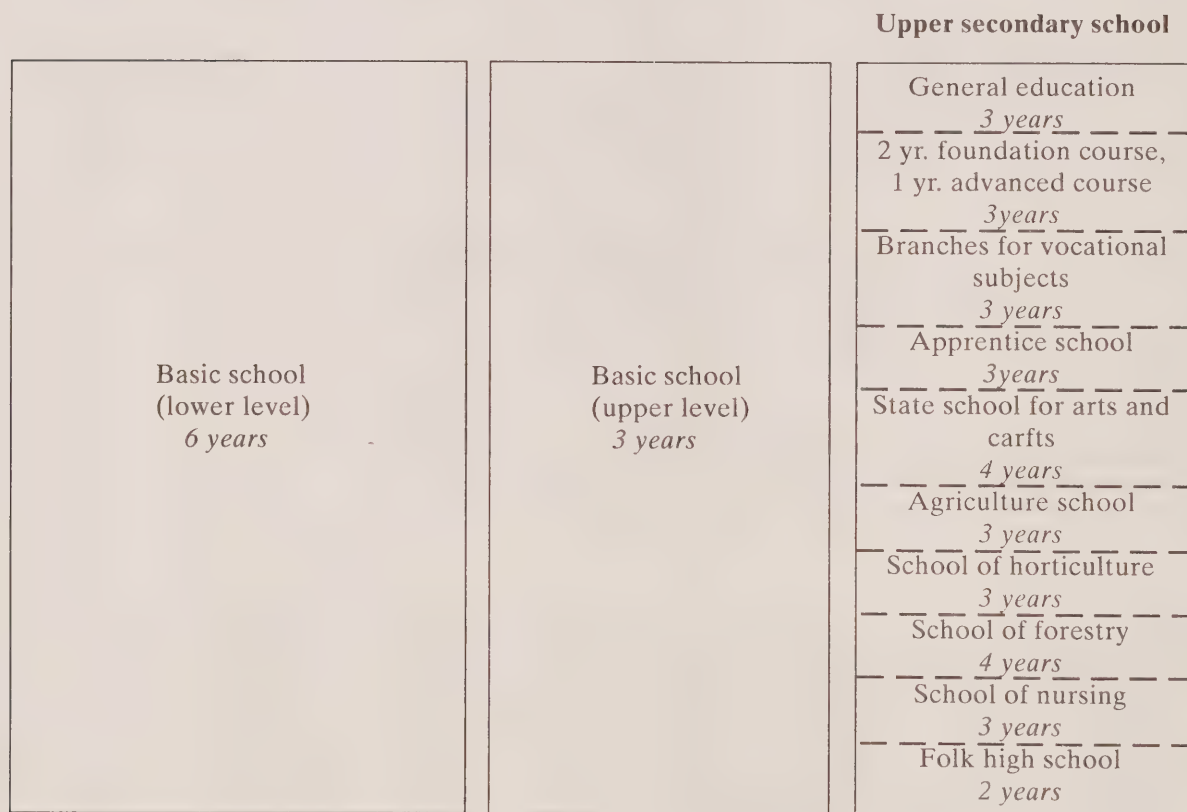
### 3. Specialized Programs/Schools: Late Streaming

Some countries do the sorting later in a student's career but typically at some point during the senior school program. Figures 3 and 4 illustrate the Japanese and Norwegian models of later sorting. Norway streams by program in comprehensive schools where students choose from nine areas of study and decide whether they wish to do all of their program in school or at a work setting or half in school and half in a work situation. Most systems of streaming whether early or late are accompanied by a set of externally-administered examinations designed to facilitate the sorting process.

**Figure 3: Educational model of Japan**



**Figure 4: Educational model of Norway**



#### **4. Streaming by Course Selection**

It is rare to find a secondary school system that does not differentiate in some way among students with regard to post-secondary school destination. However, there are schools serving relatively homogeneous populations that offer most students essentially the same program but the tendency in these schools is to focus on university preparation. In the United States and some European countries, as in Canada, the sorting is done through the selection of particular courses offered at a range of levels of difficulty. Math, English and science are typically offered at two or three levels of difficulty.

In most Canadian provinces, levels of difficulty are introduced in grade 10. Because particular levels are not offered in separate schools, students can take some of their classes in open courses where there is a mix of students planning on university, college or work. While there is some stigma associated with taking lower level difficulty of courses, it tends to be less pervasive than when students are enrolled in specialized programs where they take all their courses with the same group of peers or, of course, when they are in special schools.

#### **5. Analysis of Streaming Models**

The most common worldwide practice in secondary schools is to place students in specialized programs or special schools where the primary purpose of each program or school is to prepare students for different types of careers. Formal sorting systems are very attractive to some educators because they provide clear direction where the student is going and allow the curriculum to be focused more specifically on these purposes. When sorting is done informally it minimizes differences between students and places less pressure on the system making the formal decisions as to who will go where. Throughout North America we have a less formal sorting process based on selection of courses offered at different levels of difficulty.

The more rigid the sorting the greater the difficulty a student has in changing from one stream to another. The less rigid the sorting, the greater the difficulty the student has in determining where he or she stands in realistically identifying and attaining career goals.

Some types of specialized schools do not have the same invidious status implications as others and have proven to be very successful in North America. Such schools focus primarily on the arts although schools for those contemplating a career in athletics have also proven to be successful. However, our efforts to differentiate among schools in terms of different statuses of career preparation, i.e., academic, technical, vocational, have not proven to be as successful or acceptable to the general public.

### **FORCES INFLUENCING RESTRUCTURING INITIATIVES**

The recommendations of the Royal Commission on Learning are eagerly awaited by Ontario educators. Many programs are in partial implementation; others have not yet been defined. In grade 9 confusion and uncertainty surround decisions that must be made on course selection, evaluation of student achievement, and student advising. A brief summary of some of the issues follows.

#### **1. Organizational Issues**

Ontario has only recently undergone a major restructuring initiative which has been left incomplete. The Transition Years Program covering grades 7-9 has been partially implemented but the Specialization Years Program which was to follow has been aborted. A Ministry committee on the specialization years which was established to make suggestions, obtain stakeholder response and



then propose a structure did not complete the second phase of their activities before a royal commission was appointed. Grade 9 has been destreamed in most Ontario secondary schools but evaluation policies and procedures have not been defined and what will follow the destreamed grade 9 is not yet clear. February/March is the time of year when students make their course selections and most schools have little idea what form this procedure should take. Schools have been encouraged to experiment with integration of subjects and numerous experiments are currently underway. There is much strain on the system as educators attempt to respond to poorly defined directives within an unsettling atmosphere of uncertainty about the form the next stage will take; in particular there is concern about the possibility of further destreaming. In our discussion in Section F (p.19) of current evaluation practices in the province, we illustrate the extent of this problem area.

## **2. Teachers' Federations**

The teachers' federations and the OSSTF in particular have become disenchanted with the current government, in great part because of the social contract imposed upon them. This has tended to marginalize them with regard to playing a significant role in the restructuring process and has tended to increase their antagonization. They are particularly concerned with the extension of destreaming because of the stress they say is being experienced in destreamed grade 9 classes and the possibility of a reduction of the number of years of secondary school normally taken by students for graduation. The support of the teachers' federations is critical to the successful implementation of the recommendations of the Commission. Since government is severely understaffed, it may be necessary to use the teachers' federations to facilitate implementation of the proposed changes.

## **3. The Public and the Media**

The media have chosen to be especially critical about education in the last few years. Their criticism appears to focus on three main issues: standards; the schools' role in making Ontario and Canada economically competitive with other countries; and the transition to work for those young people who do not go on to post-secondary education. The introduction of some form of external testing program is viewed as the answer to some of the problems. One of the challenges of the Royal Commission will be to respond to the issues of standards and accountability without increasing the dropout rate. Introducing a testing program that is narrow and restrictive could conceivably do just that. The school-to-work transition issue has not received the same level of criticism from the public as the other two because the voice of the public is essentially the voice of the middle class who expect their children to go on to post-secondary education. This latter concern comes more directly from business or industry associations.

## **4. Business and Industry**

In the last few years private sector business organizations have been increasingly vociferous in their claims that secondary school graduates lack the necessary skills required in business and industry. Their arguments are now couched in the rhetoric of the need to make Canada more competitive in the global economy. For the first time they have specified particular knowledge and skills as being required and have encouraged the use of standardized tests to ensure minimum levels of competency. The following three quotes illustrate the general government responses to the entreaties of business and industry.

Several recent initiatives which I enthusiastically support are going to move us forward: (1) a standardized basic employability skills test (BEST) as proposed by the BCNI [Business Council on National Issues], (2) the recent decision by the Council of Ministers to undertake a series of tests [the national School Achievement Indicators Program or SAIP]... (Minister of Employment and Immigration, Speech to the Canadian Learning Forum Feasibility Group, May 26, 1993.)

...the Council recommends that Ontario build a new relationship for school, community and workplace. Specifically:

- All school boards should establish community linkage committees with a mandate to review school programs for their relevance to the economic and social life of their communities.
- ...each school should consider setting up its own linkage committee to develop their own career guidance apprenticeship and co-op programs. (Premier's Council Report, 1990, p. 7.) Canada must move towards a system that provides a closer integration of school, work and training. The wholehearted commitment and active participation of employers in all sectors—public and private, goods-producing and service-producing—are absolutely essential to the success of such an approach. Employers must continually identify and clearly articulate their need; communicate their expectations to students, parents, and educators; and commit themselves to active collaboration with educators and with the wider community in the design and delivery of programs. (Economic Council of Canada, 1992, p. 51.)

In 1991, The Prosperity Initiative was created by the federal government to address the issue of improving Canadian competitiveness by breaking down the isolation of various private and public sector groups and having them work cooperatively to arrive at recommendations for greater economic growth in the country. The Conference Board of Canada responded with the Employability Skills Profile, a summary of academic, personal management and teamwork skills employers seek when hiring new employees. This prompted a lobby group for major corporations, the Business Council on National Issues, to propose a standard test — the Basic Employability Skills Test — to assess basic academic skills and personal characteristics of entry-level job applicants.

And so the pressure builds.

Indeed, one of the key observations here is that Canada lacks institutional mechanisms to ensure that labour-market signals are clearly transmitted and correctly read by individuals and the learning institutions. (Economic Council of Canada, 1992, p. 17)

To what extent can the Royal Commission respond to this pressure in a situation where there is little formal collaboration between Ontario schools and business and industry and in a school system which seems to be driven primarily by university priorities? It is possible to incorporate many of the expectations of business and industry into the objectives of particular courses in secondary schools thus responding to the concern about employability skills. It would be much more difficult to develop effective school-to-work programs and the suggestions I make in the proposed restructuring model will not go very far toward this end.

## **TESTING PROGRAMS**

One of the challenges for the Royal Commission on Learning will be to rationalize external testing programs that are either planned or underway in Ontario. Pressure from the public and the media for external testing has increased in intensity over the last few years. For nearly 25 years the Ontario government's policy on education has been decentralization with regard to curriculum development and a real concern about the social and personal growth of its young people. This orientation was epitomized in the student-centred years of the 1970s but much of the rhetoric employed in Ministry documents to justify this perspective still appears in current guidelines. In light of this tradition, it has been difficult for the Ministry to conceptualize an external testing program that has as its purpose greater standardization of curricula, teaching methodologies and evaluation practices.

The Ministry of Education and Training has dealt with the dilemma of trying to respond to local



needs and still ensure standards across the province by employing a number of strategies. The first was to develop common test pools of items for particular secondary school subjects, the OAIP program; these test pools have been conspicuously under-utilized. A second strategy was to conduct program reviews in which instruction in particular subjects was examined by teams of Ministry and board officials. Since standardization of curriculum and evaluation practices was deemed to be more important at senior levels, another type of review, the OAC-TIP program was implemented. This program was designed to ensure that students across the province were covering essentially the same curriculum and being evaluated in the same way. This program has had some success but has failed to deal with the escalating marks in OAC subjects. In a major policy reversal Ontario has agreed to participate in the SAIP testing program, international tests in mathematics and science, and to introduce a comprehensive testing program of its own. It is important to look at the future role of external testing programs in light of public expectations and commitments made by the Ontario government.

In previous sections we have noted that external testing programs in other countries primarily serve the purposes of determining who will go to a particular secondary school or who will go on to post-secondary education. These tests influence all aspects of education from curriculum content to teaching methodologies and teaching practices. Also they create tremendous tension in young people and spawn large numbers of cram schools. On the other hand, it is much clearer how career goals are attained. The Council of Ministers of Education Canada see the School Achievement Indicators Program as providing useful information on the extent to which the students of a province are achieving curriculum objectives. The strategy of comparing provinces and territories with each other acts as an incentive to curriculum restructuring and provides a soft measure of accountability. It seems to me that a combination of the two functions can be achieved with two sets of school-leaving tests: one at the end of grade 9 and one at the end of grade 12. You will see in the recommended restructuring model that I have incorporated such components. In grade 9 the tests would be used to help guide the students' decisions for courses and programs in grade 10. Because they would only represent a component of the grade 9 mark and because they could be judged against provincial norms, they would not shape curriculum inflexibly yet would still provide parents and students with useful information regarding career decisions. Tests in English, math and science given each year in grade 9 to all students should serve this purpose. The second set of tests could be administered in grade 12 and the marks obtained on these provincial tests could be combined with teacher evaluation marks to make up the students' average to be used for college and university admissions decisions.

Ontario would continue to participate in the SAIP program but at the same time ensure that close adherence to SAIP testing content does not distort provincial curricula.

The Ontario government has argued that external testing programs underestimate the true performance of recent immigrants and certain minority-group students. This is a particularly important issue in the metropolitan Toronto region with its large multicultural population. The policy of the Ontario government to keep as many doors open as possible for young people to obtain access to higher education should not be discouraged by the restrictions inherent in external testing programs. The huge enrolments in adult education programs and large numbers of mature students granted access to post-secondary institutions is a testimonial to the success of this policy.

## **RELATIONSHIP BETWEEN SCHOOLS AND WORK**

In some parts of the world there is a long tradition of cooperation and collaboration between the schools and business and industry. Collaborative programs are formally introduced in senior secondary school and typically require time in school and time in a work setting each week. Students complete basic apprenticeship requirements during this time and leave school as a fully qualified tradesperson. Legislation and formal agreements are designed to formally recognize the programs



and the diploma. Usually it is necessary to have the unions functionally involved in the agreements. This is particularly important because so many apprenticeship placements occur in union-controlled settings. A close examination of Ontario's efforts to use the secondary schools as a component of apprenticeships illustrate how unsuccessful we have been in the past. There is no reason to believe that current efforts (such as the SSWAP program) will be any more successful. Even cooperative education with its enthusiastic support of teachers and students has not been successful in providing a broad-based school-to-work range of programs. Our programs are currently dependent on the efforts of individual teachers and the goodwill of participating companies and organizations. The absence of placements in unionized institutions is notable. Not only do we not have a tradition of collaboration between the schools and business and industry, our young people delay decisions about entering apprenticeships until much later in life than is the case in other countries.

Can Ontario schools become more effective in facilitating the transition of young people from school to work? In our present system, the imprecise sorting procedures in secondary schools encourage some students to retain the hope of attending a post-secondary institution long after the likelihood of gaining admission has dimmed. What this means for secondary school programming is that the vast majority of students in grades 10 and 11 continue to take university-bound courses (over 70 percent) leaving little opportunity to develop viable secondary school-to-work programs because of the small numbers of students who would select such programs.

Over half of Ontario youth actually go directly from a secondary school to the labour market. The majority of this group lack the specific skills needed for job opportunities currently available. Some of these young people will re-enter the educational system, complete diplomas and proceed to post-secondary institutions; but, most will take jobs requiring few skills (many in the service industry) and many will continue to try to find work that has meaning for them.

The secondary schools can be more effective in preparing young people for the workforce in two ways. The first is to provide opportunities for the development of generic work-related skills across all courses (e.g., report writing, working with others, initiative, flexibility). Such skills would have to be valued by teachers and incorporated into what is being formally evaluated. The second is to provide short (one-year) programs that are designed specifically for a vocational field and which have a substantial work experience component.

## **MODEL FOR RESTRUCTURING SECONDARY EDUCATION**

The model that is summarized in Figure 5 has been designed within the framework of principles that the Royal Commission has established. It has a number of strengths that make it advantageous to consider for implementation at this point in time. The proposed reorganization:

1. will lead to little structural change in the system and involve minimal cost;
2. is designed to build on school programs already partly in place and to give them a greater sense of continuity and purpose;
3. will require little teacher and administrator inservice in order to implement. (There are some curricular implications, especially in grades 7 to 9, but relevant change is already underway in these grades.);
4. responds well to concerns about accountability and individual student achievement in English, Mathematics and Science;
5. is consistent with current practices in senior grade course delivery;

6. provide a safety net for low-ability students;
7. will have minimal dislocation implications for teachers; the exceptions being problems associated with a small reduction in the numbers of teachers required to deliver the program and upgrading requirements for grades 7 and 8 teachers in mathematics and science.

### **Figure 5: Proposed Restructuring Model**

#### **Transition Years (Grades 7-9)**

- Increased emphasis on mathematics and science (upgrading of teachers, as required)
- Identification and support for special needs students
- Career education and counselling (including grade 9 career education module)
- Grade 9 external testing program (English, mathematics, science)
- Grade 9 core (6): English, mathematics, science, French, Canadian studies, physical education
- Grade 9 exploratory (2 credit equivalent): arts, business, technology, family studies, career education

#### **Senior Secondary School (Grades 10-12)**

- 21 credits required for graduation diploma (12-13 required courses)
- Academic courses at two levels of difficulty
- Technology, business, arts, family studies, physical education at one level of difficulty
- Well-defined work-related programs
- Grade 12 external testing program: English, mathematics, science

A fundamental weakness of the proposal is that it does not respond fully to the need for more effective school-to-work programs.

#### **1. The Transition Years - Grades 7 to 9**

A middle school or junior high school covering three grades is the most common school organizational practice throughout the world. A similar structure would fit well into Ontario's common curriculum strategy for the Transition Years. In other countries the middle school usually has its own separate physical plant. It is not likely that many school boards in the province would be able to restructure so as to have separate school plants for elementary, junior high and senior

high, and so for practical reasons students will have to move from one plant to another between grade 8 and grade 9. There is an advantage to separate schools between grades 8 and 9 in that grade 9 can serve both to prepare students for important grade 10 course selection decisions as well as orienting them to the more complex and fragmented secondary school organizational structure. In our recent survey of grade 9 students we found their greatest concerns about secondary school to be the following: risk of low marks, loneliness because of school size and less attentive teachers.

*a. Increased emphasis on mathematics and science*

If Ontario wishes its young people to be competitive with other countries in the world in mathematics and science achievement, it will be necessary to upgrade the curriculum in grade 7, 8 and 9 in these subjects and ensure that their teachers are qualified to teach the subjects. To ensure that appropriately prepared teachers are available, it will be necessary to require that teachers in these subjects have specialized certification. In the short run, some upgrading will probably be necessary. The external testing program described in section *d* below will reinforce the sharper focus on mathematics, science and the development of basic skills.

*b. Special needs students*

No matter what changes are ultimately implemented in Ontario schools some students will benefit more than others. The students who are most likely to be at risk as a result of your current draft of recommendations would be low achieving students. In most parts of the world it is recognized that these students need special programming and support in order to encourage them to remain in school. At the present time, in Canada, there is considerable stress among teachers associated with the integration of all types of students in their classes. It is not possible to meet the educational needs of all students and still maintain high standards. The four to eight percent of students described as having special needs must receive support in the form of specialized teachers, withdrawal programs, and effective transition to vocationally oriented programs through the transition years period or the majority will leave school early in grades 10 and 11. At the very least, there should be special teachers for English, mathematics and science; and, students could be integrated in their remaining courses with other students. It will be a difficult challenge to carry out these recommendations at a time when the educational philosophy in place is one of full integration of all students; nevertheless, a balance may be struck that serves both goals.

*c. Career education and counselling*

The functions of this aspect of the school program are to provide students with a comprehensive review of the world of work and to help them make appropriate choices of courses for grade 10. An important instructional component to carry out these functions would be to incorporate the grade 9 career education module within the exploratory program. (This is further described in section *e* below).

*d. Grade 9 external testing program*

The Ontario Ministry of Education and Training has become a strong proponent of external testing after years of questioning the utility of such tests. Current versions of external tests have become more sensitive to the range of student performance and much can be learned from both the recent grade 9 Reading and Writing Test and the SAIP mathematics test.

Externally-administered grade 9 tests in English, mathematics and science would serve three purposes: (1) they would identify curriculum strengths and weaknesses; (2) they would provide information to the public on student achievement at regular intervals; and (3) they could be used to help focus the career education process by adding more information for the decision on courses to select in grade 10.

*e. The grade 9 program*

Secondary school educators have been given the responsibility of developing the grade 9 program with all students integrated or destreamed. Although they have responded in a variety of ways, a common pattern has emerged. This pattern recognizes many of the realities of school organization and still incorporates the principles embedded in the destreaming movement. The schools typically



use eight learning or subject blocks. They may semester them or run them as full-year courses. It may be necessary to recommend that they be organized on a full-year basis in order to standardize the administration of the external testing program. Students are not given options, but are required to take six core subjects, English, mathematics, science, French, Canadian studies and physical education. For the other two credits worth of time, students rotate through the arts, business, technology and family studies. I would suggest that some variation of this structure would be a viable approach for the grade 9 year with the addition of a career education module in the exploratory component. Student achievement in the first six courses and performance on the external tests would provide the basis for recommendations of courses to be selected in grade 10. It may be difficult to maintain student motivation throughout the exploratory modules if marks obtained in the modules play little role in the determination of grade 10 course selection. However, since they are designed to expose students to interesting career possibilities they can be presented in a stimulating fashion.

The current destreamed grade 9 initiative has run into some serious logistical problems with regard to the evaluation of student achievement. In schools where students have failed first semester courses, they are attempting to provide second opportunities to complete the courses before the school year is completed (in some instances academic credits are given precedent over other courses, so, for example, a failing mathematics students may repeat mathematics in the second term but at the expense of one of the exploratory blocks). The assumption is made that students failing second semester courses will repeat them during summer school. For schools offering only full-year courses, all the failures will occur at the end of the year and failing students may be required to take summer school. To force students to take summer school would act as a powerful incentive not to fail; however, it is unlikely that all failing students would attend summer school. Therefore it will be necessary to establish an evaluation system that effectively differentiates among students but does not allow for failure. Current efforts to use the concept of incomplete can only lead to further problems. In brief, my recommendation is to avoid the concept of failure and differentiate among students' achievement using approximately six categories or letter grades.

## **2. The Senior Secondary School Year (Grades 10 to 12)**

While it may not be politically appropriate, it is important to anticipate the post-secondary school plans of students entering the senior secondary school years. A useful working model might be built on the assumption that 30 percent will attend university, 30 percent will attend college, 25 percent will graduate and go directly to work and 15 percent will leave for work before graduation. Of course, this pattern would vary depending on the nature of the community. Young people could enter post-secondary education at a later point in their lives and/or complete a secondary school graduation diploma. (In fact, these initiatives should be encouraged as part of the "lifelong education" objective.)

The educational aspirations of students entering grade 10 will differ substantially from the assumptions noted above. At the present time in Ontario, in many schools, students are selecting their grade 10 courses. Preliminary analysis of selection patterns indicates that between 75 and 85 percent are selecting primarily advanced level courses. I would assume that no matter what guidance you give to students you will get similar numbers coming out of the grade 9 structure suggested above. The pressure on students from parents and society in general to go on to post-secondary education in general and university in particular is increasing and is bound to be selected in the course choice patterns in grade 10. For the students who select the other category or level of difficulty of courses, it would be necessary to offer a full range of courses in which the two levels of students are integrated—the arts, physical education, business, technology, family studies, for example.

The challenge will be to reshape the aspirations of many students over the three years and still provide the necessary skills and knowledge to prepare them for their second or third choices of career.

*a. Levels of difficulty*

Courses should be offered either at one or two levels of difficulty depending on the nature of the course. Only the following courses need be offered at two levels: English, mathematics, science, French, history and geography. Specific school to work programming (by course) can be developed for the 25 percent of grade 10 students who do not plan to go directly to post-secondary education. This group will be augmented by increasing numbers of students over the next two grades and provision must be made for programmatic course grouping beginning in both grade 11 and 12.

*b. Special needs students*

The special education students of elementary school and the transition years as they grew older become the responsibility of the senior secondary school. Their numbers will be small and their classes must inevitably draw students from more than one grade, but it is important that they be recognized in school-to-work programs and be guided by specialized teachers. Ontario's secondary schools already have a cadre of teachers particularly concerned with this broad category of students.

*c. Credits required for graduation*

If you wish to ensure that the norm completion time for the graduation diploma is three years, 21 credits would be most appropriate in order to meet graduation requirements. Twelve to 13 of these could be required courses. If you wish to ensure that a substantial number of students will take four years, a requirement of 22 or 23 credits will probably serve that purpose. Twenty-four credits or more will likely produce a similar pattern of years taken to graduation to what we have today.

*e. Grade 12 external testing program*

As we have noted, OAC marks continue to rise. More and more students use night school, summer school and correspondence courses to improve marks. Courses are repeated, all in the competitive atmosphere of seeking admission to university programs. In order to introduce some control and shape and, perhaps, greater fairness in this process, a grade 12 external testing program should be introduced. English, Mathematics and Science testing should be required and others considered. The results of the tests could be used to make up a portion of the marks (30 to 40%) used for admissions decisions to post-secondary institutions. An external testing program would have the advantage of providing useful information for curriculum evaluation, to respond to questions raised by the public regarding accountability and more important to provide a greater focus in the competitive environment of the secondary schools. Most countries and most Canadian provinces have such a testing program in place. There is no question that such a program has a powerful influence on curriculum down through the grades and on the focus and type of learning in the last year of school in particular. However, retaining the majority of the mark for teacher discretion should ensure a flexible and comprehensive curriculum.

*e. The work experience program*

School to work programs will never be truly successful in this province until formal agreements are made with business, industry and trade unions in order to ensure a full range of placements in a variety of work settings. Credits offered in work settings should have three different functions: (1) to explore career paths for students planning on college or university; (2) to facilitate the transitions from school to work for those planning to leave school after secondary school graduation; and, (3) to integrate school credits with apprenticeship programs. A number of articulation programs involving secondary schools and colleges are now in place. It will be useful to rationalize these programs and make them available to students throughout the province.

## **OTHER ORGANIZATIONAL ALTERNATIVES**

In the following discussion I touch on some issues related to restructuring and some alternative organizational strategies.



## **1. Specialized Versus Comprehensive Schools**

Comprehensive schools may not facilitate diverse programming and lead to the most effective school-to-work transition programs, but focussing on that type of school is probably the most politically and practically appropriate position to take. The United States' spotty successes with specialized schools, the United Kingdom's difficulties in implementing its new technical institutes, and Ontario's own small-scale efforts to introduce specialized schools should provide enough discouragement for this initiative.

## **2. Grade 12 or Grade 13**

The decision to reduce the number of years of secondary school by one would seem to be an easy call because it brings Ontario in line with the rest of North America, but it has some serious implications. The most obvious are not only of the double cohort problem and a reduction in the number of teachers but also the long-term impact of increasing the labour market pool at a time when jobs are in short supply. Graduating students at a younger age may just exacerbate the problem.

## **3. School Organization**

It is ironic that Ontario now has as its norm semestered secondary schools offering four 75-minute periods a day. This is ironic because the intent was to provide sufficient flexibility in secondary schools to make four-year graduation the most popular pattern, but, of course this has not happened. Therefore, we have period lengths that are probably too long for most subjects and an eight courses a year format. Most students and teachers would prefer period lengths of 55-60 minutes, five of which could be offered every school day. Certainly this timetabling would be more appropriate for the grade 9 transitional year program if combined with the notion of full-year courses. Shorter period length would increase the flexibility of what might be offered as well as allow a redefining of diploma requirements. Semestering would still be appropriate in the senior grades but with a shorter period length.

## **4. School-to-Work Models**

Much more time and effort is required to design effective vocationally-oriented programs for Ontario secondary schools. Such programming must provide opportunities for students to upgrade at a later time. The specifics of how this might be effectively accomplished might best be left to the Ministry of Education and Training committee responsible for operationalizing your recommendations.

## **IMPLEMENTATION ISSUES**

As we have noted, a sense of urgency exists in the Ontario educational system at the present time. While it is focused around concerns about grade 9 destreaming, tension extends up through the secondary school years. Therefore, the first point to be made about implementation is that the recommendations made by the Commission must be quickly translated into Ministry of Education and Training guidelines. An intermediate document must be developed by the Ministry of Education and Training prior to producing the guidelines that will provide specific directives to the schools. The Ministry committee must be in place at the time your recommendations are released. In order to reduce the need for an extended period of deliberations around your recommendations, it will be necessary to have representation from the Ontario Teachers' Federation, parents and business and industry on this committee.

Assuming that your recommendations will be available by the end of 1994, the implementation document and the guidelines that flow from it are not likely to be ready for implementation until the school year 1996-97. It is difficult to imagine having guidelines prepared for the 1995-96 school year, but this certainly would be an ideal situation. The suggestions I have made will not have substantial implications for teacher inservice and student/parent orientation.



The OSSTF in particular has consistently demanded that proposed changes in secondary schools be fully evaluated before implementation. This would not be a realistic approach. However, I would suggest that a review of the effectiveness of the reorganization after implementation be one of your recommendations, but that the review be essentially one required for fine tuning as opposed to a comparison of alternative modes of program delivery.

Perhaps the key word for the implementation strategy is anticipation. Identify issues that will arise and have strategies in place to deal with them. Some examples might be useful. Parents must feel confident about where their child fits into the system. One of the recommendations of the Commission should cover the parent reporting system. A strategy should be in place to deal with the double cohort at the post-secondary level, if this is necessary, and how to either integrate or “grandfather” the current program. Teacher factors such as role change and dislocation should be identified and programs in place to retrain or upgrade as required. A useful strategy would be to involve the teachers’ federations in delivering the necessary inservice to accompany the reorganization. The strains evident at the present time in Ontario education could have been anticipated if the planning program had incorporated a broader strategy.

In summary, then, make recommendations for implementation as quickly as possible, keep them as simple and clear as possible, anticipate problem areas, and involve in implementation those most affected in translating your recommendations into policy and programs.

## **RESOURCES**

I was asked to provide some background information on the sources of information I have used for this paper and the discussions I have had with educators regarding alternative restructuring proposals. The following is not a complete list of sources and activities but does provide a general indication of which concepts came from where.

### **1. Recent Educational Initiatives in Other Settings**

Other provinces and other countries have either recently undergone or are contemplating major restructuring. I have tried to draw from their experiences during conception, implementation and follow-up stages. The efforts in British Columbia, the United Kingdom, Norway and France were particularly influential in my deliberations. I work with researchers studying schools in 24 countries and we have just completed the data collection phase of an international study on schools and the health of youth. Early drafts of these findings and discussions with my research colleagues from other countries have reminded me of some of the strengths of the Ontario system. Dennis O’Driscoll, professor of comparative education, directed me to a range of resources that describe systems and circumstances of other relevant countries. The resources I used are listed below.

### **2. Testing Alternative Models**

In order to test the viability of the model you propose as well as other alternative models for restructuring Ontario education, I held workshops with the following:

- local secondary school principals (2 meetings);
- faculty of education members;
- 33 elementary and secondary school teachers; and
- OSSTF officials.

The model I propose did not receive strong criticism, neither did it generate tremendous enthusiasm, perhaps if anything, a sense of relief. However, it did appear to be an acceptable resolution to some of our current problems.

## Resource Materials

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**Le développement langagier et la  
littératie dans les écoles de langue  
française**

**Diana Masny**

January 1994





***Le développement langagier et la littératie dans les écoles de langue française, January 1994.***

In this paper, Masny addresses three issues: (1) what programs are most likely to develop literacy in JK/SK for advantaged and disadvantaged students in the Franco-Ontarian context; (2) the teaching of anglais/English in French-language schools; its relation to the language of instruction and contribution to the development of language and literacy; and (3) the definition of and contribution of critical literacy to the Franco-Ontarian student and community.

She points out that children often arrive at Franco-Ontarian schools with little knowledge of French, and the JK/SK program must concentrate on language and reading readiness in French as soon as possible. She also makes the point that there is only limited help for children with reading difficulties. She recommends the development of better reading readiness and language programs, an increase in the exposure to French of children to whom this is not the first language; develop a variety of language programs at the kindergarten levels; value the literacy/language/dialect that children bring to school with them; and provide additional assistance in literacy and language skills to young students who may need it. She also recommends full time kindergartens, French daycare in the schools, and courses to qualify French-language daycare workers. Concerning teachers, she believes they should have a sound knowledge of the processes of language acquisition, a better understanding of the socio-cultural and economic aspects of teaching in a minority setting, the abolition of additional qualifications courses since special courses on reading should be offered in the pre-service year, and establish links between faculties of education and community colleges concerning the training of daycare workers.

Concerning the teaching of English in French-language schools, Masny emphasizes the importance of general language education and of the students attaining sufficient competence in the language so they can take their place in Canadian life. She calls for a clear statement from MET concerning the place of English in French-language schools, and a rethinking of current programs. She also points out that some of the teachers are not properly prepared to teach English to young Franco-Ontarians, and she recommends that specialists teach the English lessons.

Concerning critical literacy, Masny points to the work of Paolo Freire and urges Franco-Ontarian educators to teach their students how to critically examine their history to see how their minority status has marginalized them and deprived them of social justice. She recommends that critical thinking skills be taught in all disciplines, and that these skills be taught in pre-service courses to aspiring teachers in French-language schools.

\* \* \* \* \*

L'auteure aborde trois questions : (1) le choix des programmes les plus susceptibles de favoriser l'apprentissage de la lecture et de l'écriture en prématernelle et en maternelle par les enfants favorisés et défavorisés dans le contexte franco-ontarien; (2) l'enseignement de l'anglais/English dans les écoles de langue française, son rapport avec la langue d'enseignement, et sa contribution au développement du langage et des aptitudes de lecture et d'écriture; et (3) la définition de la « littératie » critique et sa contribution à la collectivité et à l'élève franco-ontariens.

L'auteure souligne que les enfants arrivent souvent à l'école franco-ontarienne connaissant mal le français. Le programme de prématernelle et de maternelle doit avoir pour objectif principal, à un stade aussi précoce que possible, la préparation à l'apprentissage du langage et notamment de la lecture en français. L'auteure signale aussi que les enfants qui éprouvent des difficultés de lecture ne bénéficient que d'une aide limitée. Elle préconise la mise au point de meilleurs programmes de préparation à la lecture et d'apprentissage du langage, une plus grande exposition au français des enfants dont ce n'est pas la première langue, et la création d'une gamme de programmes

d'apprentissage du langage à la maternelle. L'auteure recommande également que l'on reconnaisse la valeur de la « littératie », du langage et du dialecte que les enfants apportent à l'école, et que l'on fournisse une aide supplémentaire pour l'apprentissage de la « littératie » et des aptitudes de langage aux jeunes élèves qui en ont besoin. Elle propose également la prolongation à temps plein du programme des maternelles, la création de garderies de langue française dans les écoles, et l'organisation de cours de formation à l'intention du personnel des garderies de langue française. L'auteure estime par ailleurs que les enseignantes et enseignants, pour leur part, doivent avoir une solide connaissance des processus d'acquisition du langage et acquérir une meilleure compréhension des aspects socio-culturels et économiques de l'enseignement dans un milieu minoritaire. L'auteure recommande enfin l'abolition des cours de formation supplémentaire et leur remplacement par des cours spéciaux sur l'enseignement de la lecture pendant l'année de formation préalable, ainsi que l'établissement de liens entre les facultés d'éducation et les collèges communautaires dans le domaine de la formation du personnel des garderies.

Sur le sujet de l'enseignement de l'anglais dans les écoles de langue française, l'auteure insiste sur l'importance de l'enseignement général du langage et de l'acquisition par les élèves d'une compétence suffisante en langage, qui leur permette de prendre leur place dans la vie canadienne. Elle réclame que le MÉFO énonce clairement quelle doit être la place de l'anglais dans les écoles de langue française, et que les programmes actuels soient repensés. Elle souligne également que certains enseignants et enseignantes sont mal préparés à enseigner l'anglais aux jeunes Franco-Ontariennes et Franco-Ontariens, et recommande que les cours d'anglais soient donnés par des spécialistes.

Quant aux « littératies » critiques, enfin, l'auteure renvoie aux travaux de Paolo Freire et invite les éducatrices et les éducateurs franco-ontariens à apprendre à leurs élèves comment examiner leur histoire d'un point de vue critique, afin de découvrir que leur statut minoritaire les a marginalisés et les a privés de justice sociale. Elle recommande que les aptitudes de réflexion critique soient enseignées dans toutes les disciplines, et que ces aptitudes soient inscrites au programme des cours de formation préalable des candidates et candidats à l'enseignement dans les écoles de langue française.



...”a theory of critical education needs to develop pedagogical practices in which the battle to make sense of one’s life reaffirms and furthers the need for teachers and students to recover *their own voices* so that they can retell *their own histories* and in so doing ‘check and criticize the history [they] are told against the one [they] have lived.’ ... it is important to examine [their] stories around the interest and principles that structure them and to interrogate them as part of a political project that may enable or undermine the values and practices that provide the foundation for social justice, equality, and democratic community.” (Friere & Macedo, 1987)

janvier, 1994

*...To think of literacies in terms of discursive practices means trying to identify the political as well as the cognitive and (socio-) cultural dimensions of literacy in theory, research, and pedagogy.* (Brodkey, 1992)

## La langue et la litt  ratie au pr  scolaire

**1. Early year programs (JK/SK) which can make a difference in settings with disadvantaged and advantaged students in the Franco-Ontarian context: what models of programme are most likely to develop literacy in JK/SK in French-language schools?**

... Il se d  gage de ces consid  rations que le d  veloppement langagier et l’acquisition de comp  tences linguistiques commencent bien avant le d  but de la scolarisation, qu’ils continuent toute la vie de l’apprenant et de l’apprenante et qu’ils sont influenc  s par le contexte social. Dans une soci  t   diversifi  e, une bonne comp  tence langag  re ne se limite pas au maniement de la langue mais englobe aussi la conscience des divers aspects sociaux et culturels de la langue, afin de parvenir    une meilleure compr  hension de ces facteurs dans la soci  t  . Il incombe    l’  cole de faire en sorte que les apprenants et apprenantes acqui  rent ce genre de comp  tence langag  re. Ainsi, les r  sultats d’apprentissage sp  cifiques pour l’apprentissage de la langue premi  re, comme les niveaux de comp  tence prescrits pour la langue seconde, sont ax  s sur le d  veloppement d’un langage que les   l  ves peuvent utiliser pour penser, apprendre et communiquer dans une soci  t   caract  ris  e par la diversit   culturelle. Il est important    cet   gard que tous et toutes les   l  ves puissent b  n  ficier de la m  me sorte et de la m  me qualit   d’exp  rience langag  re, m  me si certaines ou certains d’entre eux peuvent employer un langage plus complexe et plus nuanc   que d’autres. (*Le programme d’  tudes commun, Le langage: R  sultats d’apprentissage sp  cifiques pour les langues d’enseignement, p.35*)

Le d  veloppement de la langue et de la litt  ratie occupent une place primordiale dans l’  ducation pr  -scolaire. La litt  ratie se d  finit comme un ensemble d’habilit  s, de comportements, d’attitudes et de valeurs li  s    la culture de l’  crit: des fa  ons de parler, de lire, d’  crire et d’agir. La litt  ratie d  signe donc la fa  on dont on v  hicule et on comprend l’information (complexe) dans des situations de communication authentiques,    l’oral et    l’  crit, dans divers «textes» (nouvelles t  l  vis  es, pr  sentations orales en classe, textes informatifs et narratifs, etc...).

Le développement de la langue et de la littératie pour les francophones en milieu minoritaire a un impact significatif tant sur le plan linguistique, socio-économique, socio-culturel que socio-politique. Ces dernières années, la population estudiantine a changé. Premièrement, beaucoup d'enfants en Ontario français arrivent à l'école de langue française connaissant peu ou pas le français. Ces enfants doivent développer une compétence de base en français pour nommer leur réalité. Deuxièmement, les jeunes de l'Ontario parlent de nombreuses langues maternelles telles que l'anglais, l'arabe, le somalien. Il est important de souligner le lien qui existe entre la langue maternelle, la première langue apprise, de l'élève et l'apprentissage de la lecture et de l'écriture à l'école. La compétence linguistique de l'élève dans la langue maternelle constitue la base sur laquelle repose le développement de compétences dans la langue d'enseignement en Ontario (le français ou l'anglais). Troisièmement, les recherches en Ontario français (Cazabon, 1993) soulignent que sur le plan socio-historique, les enfants en Ontario français sont souvent désavantagés car les Franco-Ontariens comme groupe minoritaire non-dominant dans une province majoritaire et dominante anglophone sont moins alphabétisés. Les parents ont moins l'habitude de lire des histoires à leurs enfants, de discuter, de questionner et d'élaborer sur et autour les histoires qu'ils ont lues. Ces activités contribuent au développement de la littératie. Le rapport entre la culture de l'écrit à la maison et le développement littéracie est significatif. Les recherches signalent l'importance d'exposer les enfants à la littératie le plus tôt possible en raison des bénéfices que cela apporte au développement des habiletés cognitives, notamment la conceptualisation. Finalement, le Ministère de l'éducation est sur le point de publier un document d'*Actualisation linguistique pour les écoles de langue française* pour venir en aide à cette clientèle scolaire. Ce guide s'adresse aux élèves de tout âge (Caron-Réaume, et coll., 1992). Il faut tout de même élaborer un programme spécifique pour les années préparatoires(jardin,maternelle).

Dans ce qui suit, il s'agit de faire le lien entre le développement littéracie chez le jeune enfant et certains aspects de la compétence langagière qui apportent un soutien au développement des habiletés littéraciées. C'est en étudiant ce lien qu'il est possible de faire des recommandations en ce qui a trait à la programmation au niveau pré-scolaire dans les écoles de langue française de l'Ontario. Par ailleurs, ces suggestions ont des retombées sur la formation en enseignement.

Pourquoi parle-t-on du comportement littéracie chez le jeune enfant? Traditionnellement, le développement de la littératie était le domaine de la première année; au niveau jardin on développait surtout les habiletés de pré-lecture. Les recherches actuelles suggèrent qu'il serait important de développer le comportement littéracie avant la première année. Quels sont les facteurs qui motivent ce changement de perspective?

Premièrement, l'évolution de notre société vers une ère technologique entraîne de nouvelles façons de voir les fonctions littéraciées. La place de l'écrit diffère d'une société à l'autre et à l'intérieur de chaque société, varie en fonction de l'évolution socio-culturelle, historique et politique. Dans les sociétés technologisées, les «textes» au sens élargi (films, imprimés, textes, multimédias, etc.) véhiculent souvent des idées complexes et des informations abstraites, tant à l'oral qu'à l'écrit. Dans ce contexte, l'expression des idées et des informations a fait passer plusieurs formes de la langue écrite à la langue orale, par exemple du vocabulaire et des structures syntaxiques précises et variées.

C'est précisément le lien entre l'oral et l'écrit que Snow et Dickinson ont étudié de façon longitudinale afin d'analyser l'impact du développement langagier, en particulier le développement de l'expression orale, sur la littératie des enfants de trois ans à neuf ans, enfants qui se trouvent en quatrième année. Ce sont les premières recherches à examiner comment le support du foyer et de l'école influence le développement de la littératie et de l'expression orale dans un contexte urbain défavorisé.

Deuxièmement, la définition préconisée de la littératie nous oblige à une réorientation de nos notions de la littératie. En plus de la voir comme phénomène individuel, on voit aussi la littératie



comme phénomène social. Au-delà du concept traditionnel de l'apprentissage de la lecture et de l'écriture, la littératie se réfère aussi à des façons d'écrire, de penser, de parler et d'agir dans le contexte social. L'interaction de l'élève avec le «texte» devrait donc entraîner des changements dans la façon de comprendre le monde et d'interagir avec le monde.

Troisièmement, étant donné que le français n'est pas toujours visible dans la société ontarienne, il importe que le pré-scolaire de langue française mette un accent particulier sur le développement de la langue et de la littératie, tant pour les élèves de milieu favorisé que défavorisé. Ce développement des comportements littéraciés au niveau pré-scolaire entraînera une meilleure préparation de base non seulement pour la réussite scolaire mais aussi pour un sentiment d'appartenance aux communautés d'expression française.

Dans le contexte actuel de la recherche au pré-scolaire, la recherche de Masny, Lajoie & Pelletier est la première à analyser le développement langagier des enfants en milieu minoritaire francophone de l'Ontario. Ces enfants étaient inscrits au jardin dans les écoles de langue française de la région d'Ottawa, région privilégiée par rapport aux services offerts en langue française. Dans une telle situation et toute autre situation linguistique minoritaire, le milieu scolaire est non seulement le lieu où l'usage de la langue pour les échanges interpersonnels s'épanouit mais également un lieu privilégié où se développent les habiletés cognitives, linguistiques et sociales liées aux comportements littéraciés. Celles-ci ont été identifiées comme étant les habiletés de pré-lecture, les habiletés métalinguistiques (l'habileté de réfléchir sur la langue), et les habiletés spécifiques liées à l'expression orale telles qu'elles se manifestent dans la dictée orale, le récit d'une histoire et l'écrit inventé.

En ce qui a trait à la langue orale, les recherches signalent l'apport de l'expression orale au développement de la lecture; toutefois, le fait de parler n'entraîne pas automatiquement ce développement. Les aspects de la langue orale facilitant les habiletés en lecture sont par exemple le récit d'une histoire qui fait appel à «l'usage décontextualisé de la langue». Celui-ci se réfère aux pratiques discursives utilisées entre locuteurs qui ne partagent pas à priori les mêmes informations; il incombe alors au locuteur de rendre explicite son message. N'étant pas enracinés dans un contexte immédiat temporel, spatial ou situationnel, les concepts doivent être présentés sous des formes syntaxiques explicites ainsi qu'au moyen d'un vocabulaire précis et varié.

Le but de la recherche de Masny et coll. était d'étudier le développement de la langue, en particulier certaines habiletés linguistiques préalables à la compréhension écrite et d'analyser l'interaction des variables linguistiques dans le contexte minoritaire. Les variables étudiées étaient le développement du langage réceptif, les habiletés de pré-lecture et l'expression orale. Elles ont été sélectionnées à cause de leur contribution importante au développement du comportement littéracié. Une population d'enfants inscrits au jardin plein temps (JPT) était composée des groupes suivants:

- (1) élèves francophones de milieu favorisé,
- (2) élèves francophones de milieu défavorisé
- (3) élèves anglicisés (anglais langue dominante) de milieu favorisé, et
- (4) élèves allophones de milieu défavorisé.

A cela s'ajoute un cinquième groupe d'enfants francophones inscrits au jardin demi-temps (JDT); ceux-ci sont favorisés sur le plan socio-économique. Quant au développement langagier et les comportements littéraciés, ces études longitudinales démontrent que:

- (1) l'expression orale utilisée en salle de classe (usage contextualisé de la langue) ne correspond pas à l'usage décontextualisé de la langue, usage souhaité pour faciliter



le développement de certaines habiletés littéraciées et améliorer le rendement scolaire;

- (2) la connaissance acquise sur le livre précède l'habileté de décodage de l'imprimé dans le développement des habiletés de pré-lecture. On suppose que l'habileté de décodage s'acquiert habituellement par le biais de l'école;
- (3) aucune différence significative peut être décelée entre les deux groupes (JPT et JDT).

Le prolongement de *l'horaire* n'a pas d'effet sur le développement des habiletés langagières mesurées lorsqu'on compare le JPT avec le JDT à l'intérieur d'un groupe linguistique. Le fait que certains élèves au jardin ont une compétence de base de communication oblige l'école non seulement à promouvoir chez tous les élèves cette compétence de base, la langue pour les échanges interpersonnels, mais aussi à développer la compétence linguistique, l'usage décontextualisé de la langue, pour comprendre et exprimer des concepts plus abstraits véhiculés dans la salle de classe. Cet usage nécessite une certaine connaissance de la langue qui va au delà du langage quotidien. Un *programme spécifique* doit être élaboré pour s'assurer que les élèves développent non seulement l'usage contextualisé du français mais aussi l'usage décontextualisé de la langue. L'exploitation de l'usage décontextualisé de la langue est particulièrement importante pour la réussite scolaire des élèves qui proviennent de milieu défavorisé. Le curriculum et les stratégies d'enseignement privilégiés doivent tenir compte des étapes de développement des habiletés langagières des enfants. Les différents stades dans lesquels se situent les enfants ne dépendent pas uniquement de l'âge mais aussi du milieu socio-culturel. Un contexte linguistique et culturel riche rehausse généralement le comportement littéracié des enfants.

Pour les enfants qui éprouvent des difficultés et qui ont besoin davantage de soutien ou d'encadrement au-delà de ce que le programme élaboré peut leur apporter, il y a lieu de penser au Programme *Reading Recovery*, créé en 1979 en Nouvelle Zélande par la professeure et chercheure Madame Marie Clay. Dans les écoles de langue française présentement, il n'y a pas véritablement de programme en place pour venir en aide aux enfants qui éprouvent des difficultés dans le développement de la littératie. Le programme, *Reading Recovery*, est en évolution constante car les nouvelles données apportent des modifications qui tiennent compte des derniers résultats de recherche sur ce programme. Il existe en anglais, en Maori et en espagnol: *Descubriendo La Lectura*. Il est utilisé au Canada, aux E.U., en Angleterre, en Australie et en Nouvelle Zélande. Certains outils diagnostiques de ce programme (notamment «Sands» et «Stones») ont été adaptés en Hébreu. Au Canada, la recherche de Masny et coll. a aussi adapté l'outil «Roches» et «Sable» en français.

## Recommandations

### Préambule.

Dans le contexte minoritaire francophone de l'Ontario, il importe:

(1) d'accroître l'exposition au français, pour diminuer le décrochage, pour encadrer la réalité/le vécu des enfants qui arrivent à l'école et qui possèdent une ou plusieurs variétés de langues mais non celle de la langue d'enseignement, pour donner à tous et à toutes un sens d'identité et d'appartenance à la communauté ontarienne d'expression française.

(2) de respecter les principes suivants provenant du *Programme d'études commun* sur l'apprentissage des langues premières et des langues secondes. Ils sont sous-jacents aux *recommandations* concernant la programmation, l'horaire plein-temps au jardin et la formation à l'enseignement:

*La langue, la culture et l'identité sont reliées entre elles de façon inextricable. Il s'ensuit*

*qu'un programme de langue qui reconnaît, respecte, valorise et appuie l'élève par rapport à son identité raciale, culturelle et linguistique, ainsi qu'à son sexe, rehausse le concept de soi de l'élève et facilite l'apprentissage. (Le programme d'études commun, p.35)*

*Nombreux sont les élèves qui, à leur arrivée à l'école, parlent une langue autre que la langue d'enseignement. Ces acquis linguistiques constituent un atout puisqu'ils favorisent l'apprentissage de la langue d'enseignement, à savoir la langue seconde de l'élève, et, de façon générale, contribuent au succès scolaire de l'élève. (ibidem)*

*L'école encourage tous et toutes les élèves à acquérir des attitudes positives à l'égard des langues et groupes minoritaires en témoignant de sa volonté et de sa capacité de reconnaître les expériences culturelles et linguistiques qui font partie du bagage des élèves, expériences qui donnent un sens à leur vie. (ibidem.)*

## **Recommandation 1. La programmation**

Il faudrait:

-- (a) *élaborer un programme d'études* qui, dans le cas des habiletés langagières, incorpore des principes, des stratégies d'enseignement et des activités facilitant le développement des habiletés littéraciées et créant ainsi une meilleure préparation fondamentale au début des apprentissages de l'enfant à l'école.

-- (b) accroître l'exposition au français des enfants pour qui le français n'est ni la langue première ni la langue d'enseignement; un programme est essentiel pour augmenter la *stimulation linguistique* des enfants.

-- (c) développer les habiletés littéraciées à la maternelle tout en tenant compte de l'âge et du rythme d'apprentissage. Ceci comprend le développement des habiletés métalinguistiques (habiletés de réfléchir sur la langue) et l'usage décontextualisé de la langue orale.

-- (d) reconnaître l'apport de la *connaissance d'une autre langue et l'impact socio-culturel sur l'apprentissage*. Cette programmation devrait considérer les forces et les différences individuelles et celle de la collectivité pluraliste. Il est essentiel de **valoriser** les littératies qu'apportent les enfants à l'école que ce soit une littératie d'une autre culture ou d'une autre langue.

-- (e) *introduire et élaborer un programme de prévention/proaction de la littératie en émergence*. Présentement dans les écoles de langue française, environ 15 pour-cent de la population d'élèves entre 5 ans à 8 ans aurait besoin de soutien au-delà de l'encadrement régulier offert à l'école. Parmi les programmes pour venir en aide à ces enfants, il y a celui développé en Nouvelle Zélande par Madame Marie Clay, *Reading Recovery*. Il existe en plusieurs langues et est utilisé au Canada, aux E.U., en Angleterre, en Australie et en Nouvelle Zélande. Il n'existe pas en français et doit être développé.

## **Recommandation 2. L'horaire.**

Il y a un débat présentement (voir l'éditorial du *Ottawa Citizen*, le 24 janvier, 1994) concernant le jardin plein temps, le jardin demi-temps et le jardin avec une horaire alternative (une journée plein temps et ensuite une demi-journée).

L'horaire du jardin demi-temps est à déconseiller car les enseignants et les élèves n'ont pas l'encadrement soutenu qui est souhaitable au plein épanouissement de l'apprenante et l'apprenant.

Recommandations:

Il faudrait:

- (a) instaurer le *jardin temps plein*
- (b) mettre en place *une garderie française* dans une école de langue française. Il serait souhaitable de voir la garderie dans l'école où se trouvent les enfants. Ils subiront moins de déplacement. Ils auront de plus un sens d'appartenance à la communauté et cela aidera à développer un sens d'identité francophone.
- (c) développer *Les services de garderie*: un lien étroit entre la programmation de la garderie, de la maternelle et du jardin. Il est important qu'il y ait une concertation entre la Faculté et les collèges communautaires concernant la certification.

### **Recommandation 3. La formation des enseignants**

Il faudrait:

- (a) développer chez les candidats une *connaissance approfondie du développement langagier* tant pour la première langue que pour une langue seconde et le rôle des littératies sur les plans socio-culturel et socio-politique.
- (b) donner une meilleure préparation et sensibiliser davantage les enseignants à oeuvrer dans un milieu minoritaire et dans des milieux socio-culturel, linguistique, et socio-économique différents.
- (c) *abolir les cours de qualifications additionnelles*. Les cours de spécialistes tels que celui de lecture devraient faire partie intégrante de la formation initiale. Ceci entraîne une modification majeure quant au nombre de mois alloué pour l'obtention du B.Ed.
- (d) établir des liens entre *la Faculté d'éducation et collèges communautaires*: la formation à l'enseignement et la formation à la garderie (en particulier, l'agencement des programmes)

### **Les liens entre la langue d'enseignement, la littératie et l'anglais**

**2. Anglais/English in French-language schools: its relation to the language of instruction and contribution to the development of language and literacy:** *How can anglais/English develop a positive concept of self as a young bilingual in Ontario and contribute to language and cognitive development and literacy in all forms of discourse?*

*Le maintien du français comme langue minoritaire en Ontario exige que les élèves atteignent un seuil minimal de compétence linguistique dans cette dernière langue, d'où l'importance de la langue d'enseignement et de l'environnement scolaire dans lequel évoluent les élèves. C'est en réunissant ces deux conditions que les élèves peuvent consolider et enrichir leurs acquis linguistiques et se développer pleinement sur le*



*plan cognitif. L'apprentissage de la langue seconde s'en trouve également favorisé.  
(Le programme d'études commun, p.36)*

Cet extrait du *Programme d'études commun* reconnaît la signification de l'apprentissage de l'anglais comme langue seconde dans les écoles de langue française de l'Ontario. Il souligne l'importance d'atteindre un niveau seuil de compétence dans la langue d'enseignement de l'école. La deuxième langue enseignée à l'école, l'anglais, est également importante dans le milieu minoritaire francophone de l'Ontario qui est noyé dans un plus large contexte majoritaire anglophone. Connaître une deuxième langue, en l'occurrence l'anglais, peut avoir un impact significatif et positif sur la langue première et sur l'estime de soi en tant que citoyen épanoui dans la société ontarienne et canadienne.

De fait, les apprenantes et les apprenants peuvent explorer les convergences et les divergences des deux langues--les façons de s'exprimer, de voir et de lire le monde. Cette sensibilisation et la conscientisation aux langues et cultures leur apportent une plus grande richesse et une base sur laquelle elles et ils peuvent interpréter leurs expériences/leur vécu. Cela peut avoir pour effet d'apporter des transformations quant à la compréhension et l'utilisation des conventions socio-culturelles et linguistiques dans les deux langues.

Des attitudes positives envers les langues et les communautés majoritaires et minoritaires sont importantes et se développent dans la reconnaissance et la valorisation des expériences culturelles et linguistiques de l'élève. L'ambivalence que peuvent ressentir des apprenants du groupe minoritaire vis-à-vis leur langue et leur culture a un impact négatif sur le développement langagier, la sécurité linguistique, l'identité et le sentiment d'appartenance à la communauté minoritaire. Il faut engendrer un sens d'affirmation positive en développant la compétence linguistique et culturelle dans les deux langues .

Il faut aussi comprendre que la population estudiantine dans les écoles de langue française a beaucoup changé depuis cinq ans. Un bon nombre d'élèves allophones fréquentent maintenant l'école de langue française. Ce groupe d'élèves croît en importance d'année en année surtout dans les centres urbains et industrialisés. Leur expérience de l'anglais diffère de celle de leurs pairs à l'école qui ont vécu en Ontario depuis plusieurs années ou plusieurs générations. La compétence initiale en anglais des élèves allophones leur permet difficilement de se rattraper avec leurs pairs francophones. Il importe d'implanter un programme et une pédagogie de l'anglais, langue seconde pour répondre à leurs besoins spécifiques d'apprentissage de la langue . La politique et les objectifs pédagogiques du programme d'anglais sont spécifiques aux écoles de langue française. Ils visent à faire connaître les pratiques discursives et la compétence en anglais non pas dans le but d'intégrer les élèves allophones à la communauté majoritaire mais dans le but de faire partie des communautés francophones de l'Ontario. Dans cette politique de l'anglais langue seconde, il faut également tenir compte des élèves venant de communautés à forte concentration francophone (par exemple, Hawkesbury, Hearst).

**... meaning consists of more than signs operating in context; it also includes a struggle over signifying practices which is eminently political and must include the relationships among discourse, power, and differences. (McLaren, 1992:322)**

#### **Recommandations**

##### **Préambule.**

*Le fait de connaître une langue seconde aide les élèves à prendre davantage conscience de choses linguistiques et culturelles ainsi qu'à mieux comprendre et apprécier le rôle du langage et de la culture dans la société. (Le programme d'études commun, p.36)*

## Recommandation 1. Politique

Il faudrait:

--créer une politique ministérielle(une note de service numérotée) venant de la Direction de l'Éducation en langue française.Elle décrirait le rôle et la place de l'anglais dans les écoles de langue française.

Une telle politique mise en oeuvre créerait chez les partenaires(élève,enseignante et enseignant, parent) une meilleure compréhension des conditions qui contribuent à l'atteinte du bilinguisme additif. De cette façon, les apprenants et apprenantes en milieu minoritaire pourront s'épanouir comme partenaire au même titre que les autres membres des communautés majoritaires et dominantes. De plus, ces apprenantes et apprenants en milieu minoritaire pourront participer pleinement au développement social, culturel, économique et politique de la province et de la nation.

## Recommandation 2. Programmation

Il faudrait:

--réviser le *programme-cadre* dans la Direction de l'éducation en langue française. Le nouveau programme d'Anglais/English remplacerait celui de 1985 qui existe présentement pour les écoles de langue française. Le Programme d'études commun:1e-9e année (février 1993) contient les nouvelles orientations pour les programmes d'Anglais/English. Il contient les volets pour les élèves parlant peu ou pas l'anglais,les élèves ayant une compétence de niveau intermédiaire et les élèves ayant une compétence de niveau avancé/supérieur.Le nouveau programme pour les élèves des années de spécialisation (10e,11e,12e et CPO)contiendrait la philosophie/la pédagogie et les volets d' «anglais langue seconde» qui ferait suite au Programme d'études commun.

Le développement de la compétence à communiquer en anglais se démontre par l'utilisation que fait le locuteur de la langue pour s'exprimer de façon appropriée dans différents contextes et styles et par rapport à divers buts . Dans le développement des compétences langagières, il faut faire une distinction entre les deux sortes de compétences. La première a trait aux compétences communicatives de base:le langage quotidien qu'on utilise pour nommer les choses qui nous entourent et exprimer nos besoins. La deuxième sorte de compétence langagière se rapporte au rôle du langage dans l'apprentissage et le développement de la pensée; elle permet de comprendre les idées abstraites et d'acquérir des connaissances dans les différents champs d'études. Plus précisément, cette sorte de compétence langagière (un comportement littéraire) est nécessaire pour assimiler des concepts et exprimer des idées par écrit,ou oralement,dans des situations structurées telles que les débats, les discours et les exposés.

À mesure que les élèves progressent à l'école, ils et elles prennent part à des activités d'apprentissage qui exigent des capacités d'analyse de plus en plus complexes. Aussi les élèves doivent-ils pouvoir employer des fonctions et des formes langagières de plus en plus complexes et nuancées. Le programme-cadre d'anglais/English de 1985 préconisent surtout une approche axée sur la littérature. Quoique le texte littéraire devrait continuer à jouer un rôle important dans l'éducation, il devrait se trouver à côté d'une variété d'autres «textes» qui contribuent au développement de la compétence langagière et des habiletés de pensée critique, toutes deux importantes dans le contexte de notre culture multimédia. Le nouveau programme devrait donc promouvoir toutes variétés de langues rattachées par exemple aux sciences, maths., sciences sociales. Dans l'école de langue française, ce n'est que dans le cours d'anglais que les élèves prennent connaissance et pratiquent des formes variées de l'anglais utilisées à des fins diverses. Sur le plan social, il y aura comme conséquence de ces pratiques une meilleure compréhension des différences culturelles et un développement de ressources humaines susceptibles de faciliter la participation de l'Ontario et du Canada à l'économie mondiale.

Les pratiques éducatives préconisées dans le *Programme d'études commun* et le document



ministériel l'*Aménagement linguistique pour les écoles de langue française en Ontario*, visent le développement chez les élèves des diverses formes de discours qui les aideront à s'engager dans un dialogue avec les membres de notre société. Il est également important que les élèves sachent consciemment quel type de discours utiliser dans les diverses situations de communication. Ceci signifie que les élèves doivent développer la *conscience de la langue* qui dans le document d'*Aménagement linguistique pour les écoles de langue française en Ontario* (p.13) «désigne la connaissance du fonctionnement d'une langue et la sensibilisation aux phénomènes sociaux, culturels et politiques qui l'influencent». «Le fait de réfléchir sur le langage et sur son emploi dans différents contextes sociaux aiguise la conscience du langage chez les élèves et leur permet d'apprécier les différentes variétés de leur propre langue, ainsi que la diversité des langues en tant que véhicule de communication et d'expression culturelle. Cette prise de conscience positive de la valeur communicative et culturelle des langues encourage les élèves à développer et à étendre leur répertoire de fonctions et de formes langagières, ce qui leur facilite l'apprentissage du langage, l'apprentissage par le langage et l'apprentissage au sujet du langage.» (PEC, p.21)

### **Recommandation 3. la formation des enseignants**

Préambule: La Loi sur l'Éducation en Ontario oblige les écoles de langue française à enseigner l'anglais à partir de la cinquième année. Dans les faits, les conseils/les sections de langue française commencent l'enseignement de l'anglais en troisième et quatrième année parce que les parents craignent que leurs enfants n'aient pas la compétence voulue en anglais pour bien fonctionner dans la société ontarienne. Étant donné cette situation et le rapport de force qui existe entre la langue dominante et le français, langue d'enseignement, il faudrait que:

--(a) la formation initiale conscientise tous les candidats et toutes les candidates aux enjeux de l'éducation en langue française en Ontario et fasse connaître le programme d'aménagement linguistique pour favoriser le développement du bilinguisme additif chez les élèves

--(b) la formation initiale prépare des spécialistes de l'anglais à oeuvrer à tous les cycles des paliers élémentaire et secondaire et à fonctionner avec une clientèle scolaire diversifiée. Dans la pratique actuelle, les titulaires de classe au palier élémentaire enseignent généralement toutes les matières, y compris l'anglais. De nombreux enseignantes et enseignants n'ont ni la compétence ni la motivation pour enseigner l'anglais. Si on veut que les enseignantes et les enseignants mettent l'accent sur le développement du français "en tout et par tous" dans le programme scolaire, il est important que l'on forme des spécialistes de l'anglais motivés et compétents qui dans la pratique auraient leur

«... propre salle de classe réunissant les ressources didactiques pour l'anglais. Cette situation offre plus de liberté pour l'enseignement en français, pour la planification et la recherche de ressources didactiques. Il serait bon d'établir une collaboration entre le personnel enseignant titulaire ou responsable de français et la personne responsable de l'anglais, afin que leurs interventions contribuent conjointement au développement du bilinguisme additif chez les élèves. Les thèmes exploités dans les champs d'études transdisciplinaires, par exemple, devraient se refléter dans l'enseignement de l'anglais.»

La formation actuelle doit changer pour permettre aux enseignantes et enseignants de varier leurs approches pédagogiques et leurs pratiques d'évaluation selon qu'elles et ils ont des élèves qui sont débutants ou des élèves qui sont avancés dans l'apprentissage de l'anglais. De plus, elles et ils doivent savoir adapter leur enseignement selon que la clientèle soit ontarienne/canadienne d'origine ou selon qu'elle soit allophone et nouvellement arrivée au pays.



**3. Definition and contribution of critical literacy:** *what contribution does critical literacy make to the Franco-Ontarian student and the community?*

*«Although the concept of voice is fundamental in the development of emancipatory/critical literacy, the goal should never be to restrict students to their own vernacular. This linguistic constriction leads to a linguistic ghetto. Educators must understand fully the broader meaning of student's "empowerment". That is, empowerment should never be limited to the "process of appreciating and loving oneself" (Aronowitz, cited in Giroux & McLaren, 1986). Empowerment should also be a means that enables students to "interrogate and selectively appropriate those aspects of the dominant culture that will provide them with the basis for defining and transforming, rather than merely serving, the wider social order. This means that educators should understand the value of mastering the standard dominant language. At the same time, educators should never allow the students' voice to be silenced by a distorted legitimization of the standard language. The students' voice should never be sacrificed, since it is the only means through which they make sense of their own experience of the world» (Freire & Macedo, 1987:152).*

*... How can we refrain from keeping the "other" mute before the ideals of our own discourse? What is the best way through our research (and teaching) practices to restore the marginalized and disenfranchised to history? (McLaren, 1992: 322)*

La citation de McLaren est le point de départ pour analyser la reproduction de l'iniquité quand il s'agit d'un groupe minoritaire qui se trouve «minorisé» socio-historiquement. La littératie critique, selon Freire, permettra à l'individu de se doter d'outil d'analyses et de réflexion en déconstruisant la réalité sociale et idéologique. La littératie critique vise la transformation/l'action («praxis») pour une plus grande justice sociale. La littératie critique «désigne une habileté à analyser la langue dans un média, pour en comprendre le contenu social, culturel ou politique, avec une perspective critique qui mène à l'action personnelle et collective » *Aménagement linguistique pour les écoles de langue française en Ontario*, p.64. Les retombées du développement de la littératie critique donnera à l'individu un sens d'identité et d'appartenance à sa communauté/à la collectivité francophone. Par la même occasion les communautés franco-ontariennes pourront entreprendre un dialogue vers l'équité avec d'autres communautés ontarienne, canadienne et internationale.

La littératie va au-delà de l'apprentissage de la lecture et de l'écriture et se réfère à des façons de penser, de parler, d'écrire, d'agir. L'interaction (de l'élève) avec le «texte» devrait entraîner des changements dans sa façon de comprendre le monde et d'interagir avec le monde. Selon cette perspective, la littératie doit aider chaque personne à contribuer au développement des transformations sociales vers l'équité de la condition humaine. La littératie émancipatrice cherche à entreprendre une lecture critique de l'idéologie, de la culture, et des relations de pouvoir dans la société et de sa position/son statut dans cette société.

Ce dernier point de vue de la littératie nous renvoie à une position similaire préconisée par l'UNESCO en 1975. Dans sa Déclaration de Persepolis, l'Unesco a adopté une définition d'alphabétisation qui se veut émancipatrice et libératrice. Cet énoncé vaut pour la notion actuelle de la littératie. Il faut voir dans la littératie non seulement l'apprentissage de la lecture et de l'écriture, une façon de parler et d'agir mais aussi une contribution à la libération et à l'épanouissement de la personne. La littératie doit pouvoir créer les conditions d'une prise de conscience critique des contradictions de la société dans laquelle la personne vit et de ses fins. Elle permet aussi de stimuler l'initiative de la personne et sa participation à la conception de projets susceptibles d'agir sur le monde, de le transformer et de définir les fins d'un authentique développement humain.

Concrètement, dans la salle de classe, il s'agit d'entreprendre un projet pédagogique sur le plan socio-politique pour étudier la dimension idéologique qui sous-tend les «textes» choisis en salle de classe. Dans ce sens, le choix de «texte» devient fondamentalement, un lieu de lutte de pouvoir rattaché à la vision de l'éducation: les connaissances véhiculées. Quelles histoires, langues et cultures seront valorisées et éventuellement deviendront des sujets d'apprentissage et d'analyse?

De quelle façon procéder pour développer la littératie critique en salle de classe? En prenant le vécu des élèves comme point de départ; les connaissances et les expériences qui donnent un sens à leur vie sont reconnues et valorisées. La «voix» de l'élève doit se situer dans une pédagogie qui lui permet de s'exprimer et d'apprécier la diversité qui fait partie de l'ouverture d'esprit démocratique. C'est une condition fondamentale pour entreprendre un dialogue *critique* dans un climat de confiance, de partage et d'engagement vers une amélioration de la qualité de la vie.

Un cadre pédagogique pour le développement de la littératie critique ne fait pas simplement appel à l'affirmation de la diversité culturelle et linguistique. La célébration de la diversité cache les iniquités et fait appel au statu quo, la reproduction de l'iniquité. Les enseignantes, les enseignants et les élèves doivent ensemble créer des contextes d'apprentissage où on s'interroge et analyse l'aspect idéologique rattaché aux textes étudiés. De plus le développement de la littératie critique crée des conditions propices en salle de classe pour identifier et rendre problématique la source de discrimination et des préjugés. Prenons l'exemple du statut social et la valeur rattachée à la langue, en occurrence le français dans le contexte de l'Ontario. Les luttes de pouvoir autour de la langue française continue à se faire sentir lorsqu' on tente de limiter l'épanouissement de cette langue en Ontario. Le cas de Sault Sainte-Marie qui se déclare unilingue pour freiner la présence du français peut porter atteinte à l'estime de soi chez les élèves francophones qui doivent subir cette réalité. Une telle situation les brime dans leur identité. L'individu se sent souvent diminué et intériorise les préjugés défavorables à son égard qui sont exprimés par le milieu. Cet individu ne voit pas et ne reconnaît pas que c'est là un problème de collectivité. Par contre s'il a la possibilité, en salle de classe avec son groupe, d'identifier les sources de discrimination dans les relations de pouvoir et d'interpréter ces gestes socio-politiques et socio-historiques, il se libère de sa situation de "minorisé". La littératie critique permet aux élèves de découvrir le lien entre la communauté, la langue, la culture dans un contexte social élargi à l'intérieur et à travers les groupes dominant et non-dominant.

## Recommandations

### Préambule.

*On attribue à chacune des langues qui coexistent dans une société une certaine valeur et un certain statut social par rapport aux autres. L'identité des élèves et, par conséquent, leur capacité d'apprentissage sont influencées par les attitudes sociales à l'égard de leur langue et leur culture. Pour pouvoir valoriser leur propre culture ainsi que celle des autres, les élèves du groupe majoritaire comme ceux et celles des groupes minoritaires ont besoin d'occasions de réfléchir d'un **point de vue critique** sur les préjugés et les stéréotypes qui se rapportent aux langues et aux cultures. (Le programme d'études commun, p.37)*

### Recommandation 1. Programmation.

Il faudrait que:

--le développement de la littératie critique se fasse dans toutes les matières et à tous les cycles et

fasse partie de projet d'aménagement linguistique . Le concept de la littératie critique est présenté dans le guide **Aménagement linguistique pour les écoles de langue française en Ontario**. Il est présenté dans la section qui traite du développement de la conscience linguistique («la connaissance du fonctionnement d'une langue et la sensibilisation aux phénomènes sociaux, culturels et politiques qui l'influencent» vol.1, p.12.).

## **Recommandation 2. la formation des enseignants**

Il faudrait que les candidates et les candidats puissent:

-- *recevoir une formation initiale et en cours d'emploi pour la littératie critique* comme outil de réflexion et comme activité d'apprentissage qui aidera les apprenants à transformer les iniquités sociales, culturelles, et linguistiques, auxquelles ils/elles sont confrontés dans leur statut comme groupe minoritaire. Cela pourrait se faire dans le cadre de la sensibilisation au programme d'aménagement linguistique.

### **Notes**

1a. **littératie communautaire**: une appréciation et compréhension des modes de communication qui reflètent les traditions et la culture d'une communauté.

1b. **littératie personnelle**: les connaissances et valeurs personnelles véhiculées dans sa façon de communiquer et qui est le résultat des influences de son vécu, ce dernier enraciné dans un contexte socio-historique et «gender-specific».

1c. **littératie scolaire**: processus de communication nécessaire pour s'adapter au milieu scolaire et approfondir la compréhension des concepts présentés dans les différentes matières.



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**Scientific Literacy for All  
Background Paper on Science  
Education in Ontario**

**Graham Orpwood**

January 1994





**Orpwood, Graham.**

***Scientific Literacy for All. Background Paper on Science Education in Ontario, January 1994. (La « littératie » scientifique pour toutes et tous : survol de l'éducation en sciences en Ontario), janvier 1994.***

Orpwood's purpose in this paper is to determine why there has been so much difficulty in achieving the educational goal of improving science education in Ontario, and what measures could result in improved scientific literacy for Ontario's students within a reasonable time frame. He points out that when he refers to "science," he includes the disciplines of mathematics and technology.

The paper is divided into three sections: (1) a review of major reports and studies bearing on science education in Ontario in the past decade; (2) a discussion of four central issues related to science education that emerge from this review ( enhancing and measuring achievement, broadening participation, ensuring relevance, and accelerating change); and (3) the policy implications of adopting the goal of scientific literacy for all, focussing on the areas of curriculum, accountability, teacher education, and governance.

Orpwood's review of the reports concludes that, while science teaching in Ontario is not a disaster, neither is it excellent, and Canadians appear to be satisfied with mediocrity. Results on international tests show that there is too little science in elementary school, too few women are participating in science, too little attention paid to assessment, and there are problems of irrelevancy of content. Money does not seem to be at the root of the problem. While Ontario spends as much or more on education than other jurisdictions, the results on international tests do not seem to depend on the amount of money spent. Rather our efforts should be spent on assisting elementary teachers who have little or no science background and few curriculum materials to help them.

Orpwood praises *The Common Curriculum* for its integration of science, mathematics and technology and its encouragement of a serious focus on them. He also recommends a number of changes in the secondary science and technology areas, and recommends that the Ministry engage a specialist in science education to lead in new policy development. In the realm of teacher education, he recommends that all teacher candidates have a minimum level of math and science, and that they have experience in teaching in each of the four areas of *The Common Curriculum*.

In the area of accountability, Orpwood recommends a system of indicators that the Ministry can use to report annually to the taxpayers on the state of science education. He recommends the system used in Kentucky. In the area of governance he recommends a number of changes including reconceptualized roles for all levels of government and for teachers and parents at the local level.

\* \* \* \* \*

L'auteur se propose de déterminer pourquoi il a été tellement difficile de réaliser un important objectif pédagogique : améliorer l'éducation en sciences en Ontario. Il s'interroge sur les mesures qui pourraient donner lieu à un accroissement de la « littératie » scientifique des élèves de l'Ontario, dans un délai raisonnable. L'auteur englobe les mathématiques et la technologie sous la rubrique des « sciences ».

Le rapport est divisé en trois parties : (1) une recension des principaux rapports et études portant sur l'éducation en sciences publiés en Ontario depuis dix ans; (2) une réflexion sur quatre grandes questions relatives à l'éducation en sciences qui ressortent de la littérature (comment améliorer et mesurer le rendement, élargir la participation, assurer la pertinence et accélérer le changement); et (3) les conséquences qu'aurait l'adoption de la « littératie » scientifique pour toutes

et tous comme objectif pédagogique, notamment au niveau des politiques relatives aux programmes d'études, à la redevabilité, à la formation des enseignantes et enseignants, et à la gestion.

À l'issue de sa recension, l'auteur conclut que même si l'enseignement des sciences en Ontario n'est pas désastreux, il n'est pas non plus excellent. Les Canadiennes et les Canadiens paraissent se contenter de la médiocrité. Les résultats des tests internationaux démontrent que l'enseignement des sciences est insuffisant à l'école élémentaire, que trop peu de femmes participent aux activités scientifiques, que l'évaluation est négligée, et que le contenu des programmes manque parfois de pertinence. Le problème ne semble pas dû à un manque de fonds : en effet, l'Ontario consacre autant, voire plus d'argent que d'autres provinces ou pays à l'enseignement des sciences, tandis que les résultats obtenus par les élèves de la province aux tests internationaux sont inférieurs à ceux des élèves de ces autres provinces ou pays. L'auteur préconise non pas d'augmenter les budgets, mais de consacrer davantage d'efforts à aider les enseignantes et enseignants de l'élémentaire qui n'ont qu'une formation insuffisante, voire inexistante, en sciences, et qui ne disposent que d'un matériel pédagogique limité.

L'auteur se félicite de constater que le *Programme d'études commun* intègre les sciences, les mathématiques et la technologie, et encourage le système à les prendre au sérieux. Il recommande par ailleurs un certain nombre de modifications aux programmes de sciences et de technologie du secondaire, et conseille au Ministère d'engager une ou un spécialiste de l'éducation en sciences pour diriger l'élaboration de nouvelles politiques. Sur la question de la formation des enseignantes et enseignants, l'auteur recommande que toutes les candidates et tous les candidats à l'enseignement aient un minimum de formation en mathématiques et en sciences, et qu'ils aient une certaine expérience de l'enseignement dans chacun des quatre champs du *Programme d'études commun*.

Quant à la redevabilité, l'auteur recommande la création d'un système d'indicateurs que le Ministère pourrait utiliser pour présenter chaque année un rapport aux contribuables sur l'état de l'éducation en sciences. Il préconise particulièrement l'adoption du système utilisé au Kentucky. Dans le domaine de la gestion, l'auteur conseille d'apporter un certain nombre de changements, notamment de repenser les rôles de tous les paliers de gouvernement ainsi que des enseignantes et enseignants et des parents d'élèves au niveau local.



The importance of science and technology in contemporary society is becoming increasingly evident to all but the most myopic of observers. Yet for many of Ontario's children and young people as well as for many of their teachers, science is still an exotic extra or a feared frill, not an integral part of a curriculum preparing them for full participation in the 21st century. The Science Council of Canada, in its 1984 report on science education in Canadian schools, expressed concern about the "serious gap between what science education is *supposed* to achieve and what it *actually* achieves."<sup>1</sup> The Commission should be aware that this gap appears to be as wide in Ontario today as it was when the Science Council reported a decade ago. Closing it will require long term commitment, new approaches to educational change, and the intelligent use of available resources.

Science and technology do not of themselves guarantee greater prosperity or social equity for Ontarians, of course. But they are increasingly significant forces in the global context within which Ontario seeks to develop its economic and social future. Those who cannot understand the basics of science and technology risk becoming victims of those forces rather than taking control of them. This basic level of understanding of mathematics, science and technology and their applications to everyday life, personal, social and economic, has been called "literacy" in mathematics, science and technology, paralleling the notion of "functional literacy" — that basic level of literacy required to function effectively in the modern world. It contrasts with the type of understanding required of the specialist in these subject areas, the one who intends to go on to further study in mathematics, science or technology. As a consequence, it represents the type of understanding required by the vast majority of Ontarians as we approach the 21st century.

Achieving literacy in mathematics, science and technology must be of critical importance in Ontario education as we approach the 21st century. As a society, we need to be scientifically literate so that we can compete economically with the best in the world, so that we can enable all members of society to live with the impacts of an increasingly technological world, and so that we can use technology wisely to preserve the environment, assist the development of all nations and protect global peace. As individuals, we need to be scientifically literate in order to fulfill our individual potential in our careers, to make intelligent personal choices in areas of our life affected by science and technology and to participate meaningfully in a democratic society dominated by technological forces.

Arguments for the importance of Scientific Literacy for All have been made before<sup>2</sup> and need not be repeated here and a more detailed description of the characteristics of literacy-oriented programs is set out later in this paper. The Royal Commission on Learning provides an opportunity to reflect on why there has been so much difficulty in achieving this educational goal and on what measures could result in its achievement within a reasonable time frame. In the light of such reflection, the Commission must then determine the degree to which the goal of "scientific literacy for all" is important, feasible and affordable for Ontario. The purpose of this paper is to assist the Commission in reaching such a determination.

Accordingly, the paper is divided into three sections as follows. First, the major reports and studies bearing on science education in Ontario in the past decade are reviewed (with relevant excerpts reproduced as appendices). Next, four central issues related to science education that emerge from this research — enhancing and measuring achievement, broadening participation, ensuring relevance, and accelerating change — are discussed in more detail. Finally the policy implications of taking seriously the goal of scientific literacy for all are outlined, focussing particularly on the areas of curriculum, accountability, teacher education and governance.

## A. Major Reports and Studies bearing on Science Education in Ontario<sup>3</sup>

### 1. *Science for Every Student: Educating Canadians for Tomorrow's World*<sup>4</sup>

The point of reference for many of the directions and initiatives in school science education in the past decade throughout Canada is Report 36 of the Science Council of Canada, entitled **Science for Every Student: Educating Canadians for Tomorrow's World**. This report was issued by the Council in May 1984 following the most extensive program of research and consultation on the teaching of science in Canadian schools ever conducted in Canada.

The Council's report had three themes and eight principal recommendations. Its first theme was "Science Education for All" and under this theme three recommendations were set down:

1. Guaranteeing science education in every elementary school
2. Increasing the participation of young women in science education
3. Challenging high achievers and science enthusiasts

The second theme was "Redirecting Science Education" with four recommendations:

4. Presenting a more authentic view of science
5. Emphasising the science-technology-society connection
6. Setting science education in a Canadian context
7. Introducing technology education

The third theme, "Monitoring Science Education" comprised one recommendation:

8. Ensuring quality in science education

A complete summary of the Science Council's report is contained in Appendix A.

In Ontario, any judgment of the implementation of these recommendations is inevitably subjective since no data exists that could be used for a definitive review. Nonetheless, the following table, based purely on personal observation and judgment, gives this author's view of the degree to which the Science Council's recommendations have been implemented in Ontario.

The most significant Ministry effort was made over improving science at the elementary school level. A \$3 million special program was undertaken in the years 1986-89 (see below for details) but the effort was not sustained long enough or intensively enough to effect a significant change at the classroom level. There is a significantly greater sensitivity to the need to encourage young women in the areas of math and science. However, participation rates in subjects like math and physics at the OAC levels, though improved, have yet to show the levels that would ensure young women equal access throughout the province to postsecondary education in science and technology fields. There has been little interest at the provincial level in special programs to encourage those who show special interest in or aptitude for science. Some school boards have set up special programs (such as at Marc Garneau Collegiate Institute in East York) and the Ontario Science Centre has established a special Science School. Access to such programs is still very limited however.

The notion of more "authentic" science programs was not well understood and was not featured in the curriculum guidelines published in 1986. It was intended to have students gain a better appreciation of how science really operates and to discourage the somewhat contrived "school science" characteristic of most school classrooms. There is little evidence that there has been any change in this respect. However, the idea that science should be related better to technology and society (especially to Canadian society) was promoted in the guidelines and has taken root to a limited degree in textbooks and schools. The need to get all the content "covered" is still a problem

here however. Technology is still very poorly understood and hardly taught except in so-called “technological studies” courses.

Monitoring science education does still not take place on a regular basis in Ontario although there are signs of Ministry policy changing here. The problem now is that after twenty years of little effort being made to assess quality in science learning, there is little expertise in the province in this important area. This topic will be addressed in more detail later.

## 2. *A Lot to Learn: Education and Training in Canada*<sup>5</sup>

In its final study prior to being disbanded (along with the Science Council of Canada) in 1992, the Economic Council of Canada conducted an examination of the way primary and secondary schools and the training system in Canada prepare young people for employment. Drawing from its examination of international studies of educational achievement, the Economic Council concluded:

The achievement record of secondary school leavers is not as good as that of students in lower grades, and it is outright disappointing in mathematics and science. In addition, there are troubling differences across provinces in matters of scholastic achievement — gaps that cannot be explained away by differences in educational spending per student. Nor do we find signs of improved educational achievement over the past 25 years. (pp. 15-16)

The Council goes on to propose a series of targets to provide a broad framework for policy making. In each case they identify the current or baseline status and propose indicators for measuring progress towards the other targets. The following excerpts from the Economic Council’s targets and their assessment of the current status are of particular relevance to science education:

### **Targets Current Status**

By the year 2000, all 16-year old Canadians (except for the mentally disabled) should be literate and numerate.

In 1989, some 28.5 per cent of 16 to 24-year olds did not reach Functional Literacy Level 4 and 44.5 per cent did not reach Numeracy Level 3.

Increase the proportion of graduates among high-school leavers by 3 per cent per year.

The apparent drop out rate of high-school students is estimated at 30 per cent.

Increase enrolment in mathematics, science and engineering at university and in technology subjects at the college level; increase the retention rate at advanced maths and sciences at the end of secondary school to 30 per cent by the year 2000 and 40 per cent by the year 2010; encourage girls and young women to enter these fields.

Full-time college enrolments in engineering and applied science have fallen steadily since 1983; typical fewer than one fourth of senior high school students enrol in advanced mathematics and science.

Improve achievement, especially of the weaker provinces, and improve Canadian students’ performance on international tests.

Literacy, numeracy, and student achievement in mathematics and science show large interprovincial differences; Canadian students results on international mathematics and science tests are mediocre.



Further details of the basis of the Council's assessment are included in their report. Finally, the Economic Council report outlines "four directions for change" to make our system of education and training<sup>6</sup> more:

<i>Comprehensive</i>	i.e. addresses the needs of all students
<i>Open</i>	i.e. encourages innovation, differentiation, and greater parental involvement
<i>Responsive</i>	i.e. adapts to social change and individual needs and
<i>Relevant</i>	i.e. recognizes the skill needs of the information age.

These directions for change correspond closely to those already set out eight years earlier by the Science Council. They will be revisited as issues for further discussion later in this paper.

### 3. *Ontario Science Education Report Card*<sup>7</sup>

This study was derived from Canadian data from the Second International Science Study (SISS) conducted in the early 1980s (at approximately the same time as the Science Council of Canada study). The main focus of SISS was on student achievement at grades 5, 9 and 12 and excerpts from the Ontario "report card" records the following conclusions (the full summary is attached in Appendix B).

#### **Student Achievement**

- Ontario achievement is below the national average in Grade 5 and Grade 9 and slightly above the national average at the senior secondary level. Compared to the highest achieving province in Canada, Ontario is about 4 percentage points lower in Grade 5 and over 5 percent lower in Grade 9. At the senior secondary level, Ontario is a little less than 2 percent below the highest performing provinces.
- Ontario was the highest achieving province in one instance: chemistry, in senior secondary school. In grades 5 and 9, and senior secondary school physics and biology the highest achievement scores were recorded by students in one of the Western provinces.
- Ontario did not have the lowest achievement score for any of our tests. An Eastern province was lowest in all but one case, senior secondary school chemistry, where one of the Western provinces had the lowest average achievement score.
- Biology students outscore chemistry and physics students across the country. The spread is larger in Ontario than it is in either the highest or lowest performing province or the national average. Also the difference between the physics score and the biology score is greatest in Ontario, meaning that in comparison with other subjects physics students are doing poorly in Ontario compared to the rest of the country.
- Ontario is the top-performing province in senior secondary chemistry. But at grade 5, Ontario's chemistry sub-score is comparatively poor.

#### **Male and Female Achievement**

- Males outscore females on average in Ontario and across the country. The differences are not, however, as large as some might have imagined.
- Females outscores males at only two points throughout the Canadian science

curriculum: in Grade 5 in the lowest achieving province and in the senior secondary level in biology in an average of all the provinces.

- There is a greater Ontario difference between the sexes at Grade 5 than for the highest or the lowest achieving provinces.
- The greatest discrepancy between the sexes in Ontario secondary schools is in physics.

Additional information from this report card indicates that Ontario is poorly equipped with science laboratories in Grade 5. Five times as many schools in the highest performing Canadian province have science laboratories in their Grade 5 schools. The report also notes that Ontario has a poor record of research in science education, given the number of faculty members devoted to science education throughout Ontario universities.

#### 4. *International Assessment of Educational Progress (IAEP)*<sup>8</sup>

The International Assessment of Educational Progress was administered during March and April 1991. Twenty countries assessed the science performance of 13-year old students and 14 countries assessed 9-year olds. Nine Canadian provinces participated in the 13-year olds assessment and four in the 9-year old level. Ontario participated in both.

At the 13-year old level, Ontario English-language students achieved an average of 67 per cent, which was also the average of all participating countries, while Ontario French-language students achieved less than 60%. Overall Canadian students achieved an average of 69 per cent. At the 9-year old level, Ontario English-language students achieved at the IAEP average of 62 per cent while Ontario French-Language students achieved 56 per cent. The overall Canadian average was 63 per cent. In both cases the Alberta and British Columbia students achieved at the high end of the Canadian provinces, and amongst the highest group of countries.

These results were in general consistent with those of the previous IAEP study conducted in 1988.<sup>9</sup> Overall, Ontario students appear to be achieving at around the international average in international studies, but significantly less well than students in British Columbia and Alberta.

#### 5. *Science in Primary and Junior Education: A Report of Progress*

In 1986, the Ontario government announced an initiative to implement the Science Council's recommendation to enhance science education at the elementary school level. The Minister appointed a Special Advisor to develop a provincial strategy for achieving this goal and in May 1986 published **Science in Primary and Junior Education: A Statement of Direction** containing an action plan comprising 24 initiatives covering the following areas: Curriculum; Support for Teachers; Equipment and Learning Materials; Public Awareness; Leadership, Implementation and Evaluation (see Appendix C for a list of initiatives).<sup>10</sup> He also provided \$3 million for the implementation of these initiatives.

Following the three year program, an evaluation review was published following an extensive survey of school boards and teachers.<sup>11</sup> No assessment of student learning was attempted as part of this review and therefore it comprises more of an inventory of the processes undertaken and the reactions of educators to those processes. On the whole, the evaluation committee judged the initiatives to have been well undertaken. The report concludes as follows:

The science renewal project succeeded in focusing attention on science in the Primary and Junior Divisions. As a result science programs have improved significantly over the last four years.

In the main, the initiatives were well received, and they achieved many of their objectives. Ontario school boards recognized the importance of making science a priority in curriculum planning. The policy statement, *Science is Happening Here*, provided a practical blueprint for the renewal of science and was well implemented across the province.

A subsequent renewal of intermediate and senior science programs was provided with \$25 million in support of implementation. No statement of direction or action plan was prepared and to date no review has been published which could show how these funds were spent.

## Summary

Overall, what do these studies and reports tell us about science education in Ontario? First of all, despite what some would suggest, Ontario science education is not “a disaster” relative to other countries. The trends in numbers of students achieving success in science are relatively steady, the levels of success while not at the top internationally are not at the bottom either. Overall, it would appear that over the past decade or two, we have held our own. However, as the Economic Council study reminds us, the world around us has not stayed stable. It is changing rapidly, both technologically and economically as well as socially. Nations that two decades ago were not considered “advanced” in science and technology (such as Korea or Taiwan) are now ahead of Ontario in science education. In reading the reports on science education over a decade, one is reminded that Canadians seem to be content with the “pretty good” and rarely strive for the excellent. Our science and our education systems are “pretty good” while others are aiming for excellence. The trends give us no cause for complacency.

The second general message is that the problems identified by the Science Council a decade ago are, for the most part, still with us: too little science in elementary school; not a broad enough participation in science on the part of young women (and now we must add many ethnic minorities); too little attention given to measuring results; much of what is taught being irrelevant to the lives and work of Canadian young people. All these problems were identified a decade ago and all remain critical today. The issue that this raises is the mechanisms by which educational systems change (or the reason for the inertia that inhibits change).

Finally, our politicians have, for years, contented themselves by pointing to the money spent on education as evidence of quality. Now, as public debt soars and assessments of results raise questions about the relationship between the inputs and outputs of the education system, we are being challenged to review the heart of the enterprise and to find ways of improving the outputs without increasing the overall costs. This is the central challenge of the Commission but it must also become the way of thinking about education for all who are involved in the system. In science education too, there must be a change of focus from what we put into the system to what we need to get out of it.

## B. Issues in Ontario Science Education

From the international, national and provincial studies and reports conducted over the past decade, four issues constantly recur. These are:

1. Achievement: the need to monitor it and to enhance it in math and science
2. Participation: the need to broaden and extend it especially in the physical sciences
3. Relevance: the need to increase it in the teaching of science
4. Change: the need to accelerate it through better strategic planning.

In this section of the background paper, each of these issues are discussed in relation to the teaching



and learning of science in Ontario.

### **Achievement in Science Education**

For many years, it was assumed by most Ontario educators that the province's education system was second to none in Canada and that Canadian education overall was as good as any in the world. When pressed for evidence, the Council of Ministers of Education used (as recently as 1988) to cite the per capita expenditure on education in Canada relative to that in other OECD countries. Recently, however, this argument has fallen into disfavour as Canadians have come to recognize that educational expenditures are not necessarily related to educational results and that on the basis of its results Canadian education — and Ontario education, in particular — gives no basis for complacency.

The Ontario SISS results and the more recent IAEP saw Ontario science education placed roughly in the middle of the Canadian provinces, which in aggregate placed somewhere near the middle of the international rankings. While this may not seem to be as bad as some might have feared, it should be noted that above Ontario in the rankings are most of the countries with which we seek to compete technologically and economically (Korea, Taiwan, and in the case of the 9 year olds, even the US) while below Ontario are most of the countries with which we have traditional social links (England, Scotland, Ireland, France, and Portugal).

This serves as a reminder of the changing ways in which we have come to view comparative education. As long as education is seen primarily in social terms, then the interesting comparisons are with those countries from which many of our citizens have come originally and in which our social and cultural roots are planted. When the economic importance of education becomes more apparent, then comparisons start to be drawn with those countries with which we compete in the economic and technological sense. One set of comparisons is not inherently more valid than the other, of course. However, the economic pressures we face and the increasing importance of science and technology in determining economic advantage mean that the relatively mediocre standing of Ontario science education both in Canada and internationally should be a matter of official concern.

However, until very recently, the official response to such results has been quite remarkable. Following the release of the IAEP report, the then-Minister, Mr Tony Silipo “cautioned against using these results to...advocate an emphasis on basic mathematics or province-wide standardized testing” adding “such approaches have proven unsuccessful elsewhere”.<sup>12</sup> Since giving up the use of the so-called “departmental examinations” in the 1960s, the province has maintained an almost ideological opposition to any form of standard assessment in any areas of elementary and secondary education. This stance has been supported strongly by the teachers' federations and by many board level officials.

The present Minister, Mr Dave Cooke, has begun to respond to the growing level of public concern about school achievement in a variety of ways. He restored Ontario's full participation in the Third International Math and Science Study and has been a strong supporter of the CMEC School Achievement Indicators Program (SAIP) which recently added science to its roster of subjects for assessment. But more importantly, he has announced province-wide testing programs in core subjects at key stages of the school system, thus signalling to Ontario parents and teachers that standards and assessment on the basis of standards are to be encouraged.

Of course measurement does not, of itself, improve achievement any more than taking the patient's temperature can effect a cure. However, a return to systematic measurement of science achievement is important in two ways: it signals to all concerned the importance of results; and it provides an opportunity for Ontario educators to relearn the arts and science of educational measurement, an area generally neglected for the past twenty-five years. Each of these issues require some further discussion.

For some, this is the single most important thing for the Royal Commission to focus on. For others, it is one of several that are of critical importance. But there are few who do not agree that Ontario students could learn more effectively, especially in the critical subject areas of mathematics and science. Learning is, of course, a highly personal matter. Teachers, schools and ministries of education cannot control it directly.

However, there are some essential ways that the education system can enhance the achievement of its students in science. For example, the province should articulate clear and achievable objectives for all students to achieve at each level of the school system, these objectives being focussed on the general goal of Scientific Literacy for All. School boards should provide for the teaching of science to every student up to Grade 10. Right now, there are too many classrooms where no science is taught at all or where the teaching is totally inadequate. Universities should ensure that teachers certified to teach in Ontario schools are adequately prepared in the areas of math and science. And the ministry or, better, an independent agency should undertake regular assessments of science achievement and publish the results in ways that demonstrate progress by each school board in this area. The point is that we know what is required to improve achievement in science education. So far, we have lacked the political will to make the changes needed.

Part of the problem here is the lack of consequences for students, teachers, schools, boards, or the Ministry if nothing happens or if results do not improve. Students are advanced regardless of learning and graduate chiefly by staying in school long enough. Teachers have life-time certification and better job security than members of almost any other profession. The achievement results of individual schools and school boards — even if they are measured — are almost never made public so criticisms from the public can only ever be “matters of opinion” since there are few data to base them on. And at the provincial level, no Minister of Education has ever resigned because of low levels of achievement. At every level, school achievement may cause wringing of hands but it rarely causes anything else. If achievement in science and other subjects is to be improved, there must a system of carrots and sticks, there must be consequences of improvement and of failing to improve.

Another part of the problem is the failure of the educational system to involve parents adequately. In general, parents want their children to be successful and to achieve well in school and it has been parents who have been largely responsible for the movement toward greater accountability and for restoring some kinds of achievement measurement in schools. Some schools have developed homework policies in cooperation with parents to ensure that parents and teachers work more effectively together to see that homework is done. Other schools have worked with parents to improve the reporting system so that parents know better how well their children are doing in each aspect of each subject in school. Yet other schools have encouraged teachers to explain the details of the courses to parents and to show what roles they might play in sharing responsibilities for the children’s learning. All of these steps and more need to be taken everywhere if we are to demonstrate to the community that schools are getting serious about achievement.

A third way in which scholastic achievement, in science as well as in other subjects, can be improved is by providing more recognition for it than is often the case. In many schools, achievement in sports or in the arts is recognized through a variety of public celebrations but scholastic achievement is often less well celebrated. This is to some degree a reflection of a culture that values sporting achievement more highly than learning, a reality that has led one American writer to suggest that educational reform is unlikely ever to take root in that country because American society is more concerned to talk about it than to change its fundamental values.<sup>13</sup> One of the objectives of the Canada Scholarships program launched by the federal government a few years ago is to celebrate success in science and technology but its impact is likely to be felt at the most senior levels of high school only. Throughout the school system, academic achievement in science and in other subject



areas needs to be recognized and valued.

Finally, and perhaps most important, nothing motivates students to higher performance more than a sense that what they are studying is of real relevance and importance to themselves, their lives and personal aspirations. Science and technology are of enormous relevance to the lives and careers of all young people in school today. yet too often the way it is taught fails to highlight this relevance. Science is seen as “just another school subject” rather than as the key to a door to rewarding work or exciting opportunity. The ways in which mathematics, science and technology are taught needs to be examined for these links to the real world of students.

### *Measuring Achievement in Science Education*

With the low level of importance given to measurement of educational achievement over the past few decades in Ontario, the arts and science of assessment have become correspondingly rusty. Since the techniques of assessment in science education have developed significantly elsewhere, we in Ontario have a lot to learn in order that any new assessment programs are conducted as well as possible. While there are a few experts in the province, it will be necessary for that expertise to be increased and broadened as soon as possible.

One of the Science Council’s recommendations is of particular relevance in this context. The Council found that, while Ministries of Education in several provinces had articulated a broad variety of goals and objectives for science education, only a few of these were reflected in test instruments and assessment programs. In the international studies, while the curricula of many countries must be accommodated, there is at least a systematic effort at assessing all the goals of science education. In the classroom, however, this is almost never the case. The Council called therefore for the assessment of the full range of objectives of science education. If steps are not taken to enhance the range of assessment instruments, then the message goes out that some goals — typically, the factual knowledge ones — are of most importance and that others, such as problem solving, are of less importance. The assessment of more complex goals is more challenging and takes much more preparation than does the simple testing of factual knowledge. It is critical therefore that Ontario be ready to develop sophisticated measures of science achievement. The fact that the province is participating in the Third International Math and Science Study (TIMSS) as well as in the School Achievement Indicators Program (SAIP) will be of value in this respect. A complete review of the Ontario Assessment Instrument Pool (OAIP) should also be undertaken.

### **Participation in Science Education**

While the improvement of overall achievement in science is important, it cannot take place at the expense of the range of students participating in science courses. “Scientific Literacy for All” means just that. All students should aim to develop a sufficient grasp of scientific concepts that they are able to function effectively in a science and technology-dominated society. Achieving this goal requires that science courses be relevant to the needs and interests of all students (this aspect of science education is discussed in the following section of the paper). It also requires that the increasingly diverse and multicultural nature of Ontario society be taken into account in planning curriculum and in teaching.

In the past decade, science educators have thought a lot about the need to attract more girls and young women into science, especially into the physical sciences. And while there is a long way to go in ensuring that female students have an opportunity to succeed in math and science equal to that of male students, progress has certainly been made. Fifteen years ago, the Ministry did not even collect data on subject enrolments by gender. Recent reports from the Toronto Board of Education show that, with the exception of physics, enrolments in math and science are now almost



balanced and that any gaps in achievement have almost entirely closed.<sup>14</sup> Physics is still a problem, not least because the subject tends to function as a gatekeeper to all postsecondary science, technology and engineering disciplines. Increasing female participation in physics must continue to be a goal therefore.

The challenge facing science educators now, particularly those working in urban areas, is one of broadening participation in science through the wide range of racial and ethnic minorities that make up our schools. This problem is complicated by the fact that, while few data are available (enrolment data is not collected by racial or ethnic background) it is evident that significant differences exist in participation in math and science among different racial groups. For example, in the schools around York University, students from South-East Asia are more likely to be enrolled in an OAC Physics course than are students from a Caribbean background and research is ongoing concerning ways to stimulate a broader interest in math and science amongst students not currently very involved.

Much of the work being done in Metropolitan Toronto on multiculturalism has focussed on social and language issues — an appropriate place to start — but the issues of mathematics and science are still areas that require much more investigation. Teachers need guidance concerning ways to assist students with widely differing life experiences and cultural backgrounds and science programs need to be rethought from the perspective of the students themselves. Finally, many more science and math teachers need to be drawn from the many racial and ethnic communities that make up our cities. The effect of such role models will be significant.

Finally, the OS:IS course structure in science education needs to be rethought if the goal of Scientific Literacy for All is to be adopted. At present, the senior level of high school science comprises courses at Advanced and General levels in Biology, Chemistry, and Physics with additional courses in Geology, Environmental Science and, at the OAC level only, Science in Society. This course structure is designed primarily in the interests of those students who intend to go on to university or college and take a science or technology related program. There is little provision made after grade 10 for students who are not intending to study science subjects at the postsecondary level. The OAC Science in Society course is not widely taken; from the start, it represented a compromise between a science (content) course and a course *about* science, without quite succeeding at being either. Quebec has a mandatory course concerned with technology and Alberta has developed a series of Science 10, 20, 30 courses designed for the non specialist and Ontario might consider such options. The goal should be to expect (if not actually to require) all students to study aspects of mathematics, science and technology to the end of their high school careers regardless of their postsecondary aspirations. However, it is unrealistic to think that grade 10 science (the present minimum requirement for high school graduation) is sufficient for students to be scientifically and technologically literate by the time they reach the end of high school.

### **Relevance of Science Education**

The perception of the relevance of science is closely related to the issue of participation in science education. If science is seen as something dry and abstract, having little to do with the concerns and aspirations of young people, then they will abandon the subject as soon as permitted to do so. In the previous section, I argued that the goal of scientific literacy for all required more science courses than are presently required for high school graduation. However, the existing courses are not — as current enrolment levels show — appropriate to the needs of most students. Present senior level science courses are designed primarily as college preparatory courses in the major disciplines of biology, chemistry, and physics. More of the same is not what is required, therefore. Scientific literacy must have such obvious relevance and interest to students that courses with this focus will be courses that they want to take.

## *What is Scientific Literacy?*

Scientific literacy has become a slogan whose meaning varies from context to context. The Third International Mathematics and Science Study, currently under way, is assessing literacy in mathematics and science among students in their final year of high school (regardless of course selection) and three components of the TIMSS definition of such literacy are useful here.<sup>15</sup> First, there is a *content* component. A person who is said to be scientifically literate must know some science content. But TIMSS has refined this to mean that the student should retain a “residue of the conceptual foundations of science” rather than a bank of factual information. In other words, by the end of high school, a student who is scientifically literate should understand the important concepts of science while maybe not being able to recall detailed factual information. This is in contrast to many of the existing science courses in which recall of detailed simple information and the performance of routine operations is the primary focus. In identifying concepts that might make up the content of scientific literacy, the criteria should be those most useful in coping with everyday life, both as an individual and as a citizen.

The second aspect of scientific literacy established by TIMSS is that of *context*. It is one thing to understand a scientific concept; it is quite another to recognize it in a real world context and thus to be able to solve a concrete problem using the concept. A person who is scientifically literate, according to TIMSS, is one who can use his or her understanding of science in solving real world problems. This contextualized understanding again represents a departure from the traditional understandings required in school courses in which the knowledge required is abstract and the problems confronted are often contrived. Related to this of course is the ability to communicate the concepts of mathematics, science and technology in language which the lay person can comprehend. The persistent use of jargon, understood by only a few, suggests that in some respects even members of the scientific community lack elements of a more functional scientific literacy.

Finally, a person who is scientifically literate can *reason* and can be critical of others’ reasoning in matters concerning mathematics, science and technology. On a daily basis, we are confronted with scientific information, often presented statistically or graphically, in newspapers or on television. Much of this information is absorbed uncritically by the reader or viewer and the conclusions stated are assumed to follow logically from the data presented. A person who is scientifically literate can be expected to analyze such information critically, to determine for him or herself the validity of the conclusions, and to make a logical decision on the issue in question. Often, in contemporary society, issues of technology — from irradiation of food to the generation of electricity to the technologies of reproduction — are matters for public and societal debate. Yet few members of our society — even many legislators and parliamentarians — are able to comprehend the issues and are therefore subject to the pressures of special interests.

Science in secondary education has, for years, been driven by the need to “cover” the huge amount of content prescribed by Ministry guidelines. Internationally, there is an increasing consensus around the simple notion that “less is more” — that one can learn more of the essentials (what I have called here scientific literacy) if one aims to cover less detailed content.<sup>16</sup> This content driven focus must change if scientific literacy is to be the focus not only for those who do not plan to study science further but also for the future science student.

## *Science Literacy in Elementary Education*

One of the striking features of science education in other provinces of Canada and even more in other countries of the world is that science is taken seriously from the youngest years of elementary school. Math, science and technology fit well together at the primary and junior levels of education but in Ontario, their importance has been down-played for many years. Teachers feel inadequately trained to teach this component of the program (and that feeling is well founded). Many principals



do not rate this component of the program as important as other parts and so there are no consequences if it is left out. And while many Boards have generated program materials to make up for the lack of provincial leadership, the active discouragement of school publishers' efforts in this area over many years has resulted in an almost total lack of quality learning materials in the schools. As a result, resourceful teachers have had to make their own materials, use materials from the US or the UK or teach from work-sheets. The larger school boards have developed kit programs that have been useful.

The 1986-89 program to stimulate science in the primary and junior divisions was well received by the schools but the resources have now been used with the task perhaps 20% completed. Such a program needed to be carried on for maybe 10-15 years to have its maximum impact but the Ministry review made no attempt to measure the extent of the original problem and the degree to which the program was successful in alleviating it. Now, with the publication of *The Common Curriculum*, the document *Science is Happening Here* has been downgraded from a "policy statement" to a "resource document" and much of the development work encouraged from 1986 to 1989 is now outdated and must be undertaken again. Nonetheless, the directions taken both by *Science is Happening Here* and *The Common Curriculum* are entirely consistent with the focus on Scientific Literacy for All described here. What is needed at the elementary school level is renewed efforts at helping teachers implement these documents to ensure that science is really "happening" in every classroom in Ontario every day of every year. High achievement and full participation should be the goals. Scientific literacy for all should be the focus. The final theme of this paper is how these changes can be brought about more rapidly and effectively than in the past.

## Change in Science Education

Nothing stated so far in this paper is particularly new. The notion of scientific literacy has been around for over 20 years and there has been general agreement in Ontario that all students need to receive a quality education in science. Yet, the studies tell us that so much needs to be done. Despite the efforts of thousands of educators over the past decade, we seem to be still as far from reaching the goal as ever. A fundamentally new strategy for educational change in Ontario appears to be needed.

Several of the factors affecting change (and inertia) in science education have already been touched on in the course of this paper and need not be discussed at length again: the lack of focus on results, both for students and schools; the lack of consequences for not making improvements; the lack of partnerships with parents and others who can make a difference. Elsewhere, Jennifer Lewington and I have discussed these and other inflexibilities in the system, all of which combine to make education less responsive to change than it ought to be.<sup>17</sup> Here, briefly, I will focus on those factors that are specific to science education.

## University Science and Secondary School Science

Those who teach science at secondary schools are, typically, graduates of Ontario university science programs who have also received a one-year education B.Ed. program at a Faculty of Education. Their view of science, its content, structure, methods and purpose tend to be shaped primarily by their undergraduate experience of the subject. By contrast, professional scientists tend to see undergraduate science as mere preparation for their research careers in science and it is this professional experience which shapes their understanding of the subject. Unfortunately, undergraduate science is perhaps the most content-driven experience which can induce a significant degree of philosophical "tunnel vision" as has been documented well, by Sheila Tobias.<sup>18</sup> And for most teachers of science at the intermediate and senior levels, it is this preparatory experience only, this narrow focus combined with its epistemological underpinnings and assumptions that dominates



their view of science and science education — a view that they often take uncritically into the classroom and pass on to the next generation.

Coupled with curriculum guidelines for senior science courses that contain the same content-driven focus, which were developed by science educators with the support of university science faculty, the cycle seems destined to continue. It is a rare university science professor — Bill Fyffe at the University of Western Ontario or Brock Fenton at York University are examples — who speaks out about how this cycle should be recognized and broken. There is little doubt in my mind that one of the biggest impediments to changing the focus of school science courses from the narrow discipline based content-driven courses they are at present to courses more focussed on scientific literacy is the expectations of school science held by university scientists.

These comments should not be taken as an attack on university science, even less on my colleagues who teach science at university, but on an implicit cycle of inertia that resists change. Science teachers are caught up in it before they even become science teachers; faculties of education can do little in one year to make a significant difference. A new relationship among science faculties, education faculties, the teaching profession, and the school systems are required to counteract the effects of the cycle of inertia.

### *Elementary School Science and the Integrated Curriculum*

At the elementary school, especially in Ontario since the publication of *The Formative Years*, there has been a strong commitment among many teachers, principals, superintendents, and Ministry officials to the idea of the Integrated Curriculum. This commitment sometimes takes on an almost ideological force which can give the impression that the “Integrated Curriculum” is an end in itself, rather than a means to the end of children’s learning and development.. Under these circumstances, there is often strong resistance among elementary educators to subjects (such as science) that appear to threaten the integrity of the (existing) integrated program. The 1986 science education initiative, while welcomed by many classroom teachers, was strongly resisted initially by some Ministry officials and senior elementary educators on these grounds.

An integrated curriculum that effectively contains no science or technology does not serve the students well. Moreover, as many elementary school teachers have demonstrated, science and technology can be integrated into a program effectively. However, given the choice between an integrated program with no science and a program in which science taught as an additional core subject (such as is often the case with French or Music), the latter has to be preferred. The ideal would be to see science well taught and integrated into the whole curriculum but if this is too difficult for some teachers to handle, then science must be taught in other ways.

### *Public Attitudes to Science and Technology*

Canadians as a people do not have a high degree of understanding of science and technology nor of appreciation of their impact on our economy and society. Part of this is a reflection of past practice in schools and part is a reflection of broader cultural and social trends. A small part is also related to anti-science and technology attitudes to be found in some university and social circles.

This is not the place for an exhaustive analysis of these attitudes but it is important to note that the vast majority of teachers at the Primary and Junior levels are graduates of university Arts programs and have had little or no science education since high school. They are therefore no different from many other members of the public in either feeling uncomfortable with science and technology or actively hostile towards these subject areas.

Given my comments on university science programs early and the uncritical cycle into which secondary school science teachers are initiated, I would not see elementary school teachers being helped by more university science courses as these are. However, if they are to be expected to lay the basis of scientific literacy for their students, then they should also be scientifically literate. Just as there is a cycle of uncritical science acceptance for secondary school teachers, there appears to be a parallel cycle of uncritical science avoidance for elementary school teachers. Both cycles are undesirable. Both are impediments to the goal of scientific literacy for all. And both must be eradicated if real change is to occur.

### C. Policy Implications

The argument of this paper to this point has been that independent studies and reports of relevance to science education in Ontario over the past decade have suggested that what I have called here “Science Literacy for All” is an appropriate and important goal for Ontario education but that a series of impediments have prevented its attainment. The final step in the argument is to examine the implications for educational policy of adopting this direction for science education in the province. Many of these have already been touched on in the preceeding discussion of issues and this section will therefore have a summary quality to it. The policy implications are outlined under the following four headings: Curriculum; Teacher Education; Accountability; and Governance.

#### Implications for Curriculum

At the Primary, Junior and Intermediate levels — incidentally, the Commission would do the entire community a service if it could encourage a simplification of terminology to describe the levels of schooling in Ontario; right now, three systems appear to be in use, one to describe the schools, one the curriculum and one the teachers’ qualifications — *The Common Curriculum* has not yet had a serious chance of implementation. Also, while its language is obscure and its focus is too much on the processes of learning rather than on results, it appears to be consistent with the Science Literacy for All direction proposed here. In particular, the math, science, technology grouping encourages a serious focus in these areas where *The Formative Years* did not. However, *The Common Curriculum* leaves the status of the Grade 10 curriculum unclear. It would appear reasonable that future editions of *The Common Curriculum* include Grade 10 as an integral part of the pre-specialization program. Another issue in relation to *The Common Curriculum* is that the status of “subjects” in the curriculum is left vague. One must assume that this is partly a political compromise to accommodate a variety of distinct ideological positions held by educators but the Ministry should develop a preface to *The Common Curriculum* that sets out a clear conceptualization of the role of the disciplines and how this role develops and changes from Kindergarten to Grades 9 and 10.

While the implications for *The Common Curriculum* document itself are to leave it largely alone for now, there are significant implications of the analysis presented here for the implementation in schools of a real math, science and technology component of school programs. These relate to all the other areas of policy implications — governance, accountability, and teacher education — but significant steps are required, similar to those taken in 1986-89, to sustain a long term commitment to improving the quality of math, science and technology experienced by Ontario students. Schools must all be held accountable for the quality of their programs in this area, and boards must take responsibility for ensuring adequate support for science, math and technology. Universities — faculties of science and education working together — must ensure that new teachers entering the schools are adequately prepared in these areas and that already-qualified but inadequately prepared teachers are given extra support. All these initiatives will require special financial support and the Ministry will have to reallocate resources if the goal is to be achieved.

At the secondary school level, Scientific Literacy for All implies an entirely new approach to curriculum. Two new “math, science and technology” courses could be developed to replace the



one existing OAC course “Science in Society”. The new courses, designed for grade 11 and OAC, would have a general focus on science and technology in a broad societal context and would have scientific literacy for all as their main focus. Graduation requirements could then be adjusted to require one of these courses with the expectation that all university bound students would take both. Courses in Biology, Chemistry and Physics would remain at the Senior Division but would be taken by fewer students, those intending to specialize in particular sciences at the postsecondary level. These specialist courses would also be reduced in content coverage significantly in order that the scientific literacy goals can become a significant emphasis. OS:IS regulations concerning graduation requirements should also be reviewed to increase the overall science requirements for all students. Policy changes such as these would have corresponding implications for teacher education and certification, and also for assessment. The Ministry should also have a science specialist on staff to provide the leadership required for such curriculum work. It is unreasonable to expect a person without a significant background in science education to carry the responsibility for provincial leadership in the area.

### **Implications for Teacher Education**

There is probably no area of greater importance for ensuring scientific literacy for all than teacher education. As noted earlier, there are two substantive shortcomings of the existing system in regard to science. On the one hand, most teachers at the Primary-Junior and Junior-Intermediate levels have little or no background in science and are often uncomfortable with the prospect of teaching in this program area. The cycle of uncritical science avoidance is perpetuated here. On the other hand, those with a science background who mostly go on to teach at the Intermediate-Senior levels are often caught up in the equally problematic cycle of uncritical science acceptance, having had little opportunity to reflect on the nature and assumptions of the scientific enterprise and its place in the broader social and economic context.

As long as teacher education is seen as a one-year program of university education leading to full and life-long certification as a teacher, and prerequisites for entry to faculties of education remain unchanged, these cycles are unlikely to be broken. As the demands of teaching increase and become more complex, more and better teacher education is required. Part of this increase can be accommodated within a preservice program, either of the existing length or, better, in an extended format. But part must wait until the initial problems of entering teaching are overcome and new teachers are ready to confront more complex aspects of their professional life. As long as the systems of certification and employment of teachers makes no demands on them for continuous teacher education, only a relatively small proportion of teachers will voluntarily return to university for additional education. The unilateral abandonment by the government of support for AQ courses has only exacerbated this problem. Steps must be taken to ensure that all teachers continue their education beyond the B.Ed. level. New York State, for example, requires a Master’s degree as well as school experience for permanent certification. Other jurisdictions make certification renewable every five years on the basis of demonstrated growth and continuous education.

For their part, the universities must work to break the cycles of science avoidance and uncritical acceptance. All teacher candidates should be required to have a minimum level of math and science background for admission and faculties of education should be required to certify to the Ministry of Education that all graduates recommended for certification have had minimum amounts of teaching experience in each of the four areas of *The Common Curriculum*. In the case of science specialists, an integral part of their teacher preparation should include a course in which the nature of science and the place of science and technology in society are studied. In both cases, these “science studies” must be part of the continuing education of teachers as well as part of their preservice education.

Scientific literacy for all must start with the teachers and a major program of science and technology literacy needs to be mounted for the many existing teachers currently in the system who have a



minimum science background. The AQ course, Science in Primary and Junior Education, which was put in place in 1987 was a start. However, since it did not (in many cases) affect teachers' salary increases, it was not taken by large numbers of teachers. Such a course needs to be provided to many more teachers throughout the province if significant changes are to be felt.

If this is not seen as feasible, then science specialists need to be hired by schools in order to guarantee that every child in Ontario receives science and technology as part of his or her school program on a regular basis. Special funding ensures that this is the case for French (for English speaking students). A commitment to science would require no less.

### **Implications for Accountability**

Two initiatives are required to ensure that the province and its school boards can be accountable to the parents and taxpayers for providing for our young people to become scientifically literate. First, standards need to be set by the Ministry for each level of schooling and achievement tests designed to assess the degree to which students are reaching those standards. Reporting of results by school to parents and community members will provide incentives for all schools to work to improve their programs.

Second, a set of performance indicators need to be designed by which each school board can assess the state of its science programs. The East York Board is developing just such a set of indicators in cooperation with York University and will be piloting them in 1994. Such indicators can act as a means to "take the temperature" of the system with respect to science education, including measures of teaching practices, curriculum and equipment resources, as well as student participation and achievement.

The Ministry should be able to use such indicator systems to report annually to the taxpayers on the state of science education and on the growth or improvements in the previous year. The accountability mechanisms instituted in Kentucky by the State Education Department are a model of how the education system has become much more responsive to its clients than in the past. Ontario should be instituting similar mechanisms for accountability. An advisory council for science and technology could also be an independent watchdog on the state of science education in the province. Such a council could report to the public and the particular stakeholders in science on the progress being made toward Scientific Literacy for All.

### **Implications for Governance**

The implications for governance of the discussion of issues in science education are difficult to separate from governance issues in general. On the one hand they do not emerge from the issues of this paper directly; on the other hand, the realization of all the recommendations of this paper depend on a new and effective system of governance being in place in the province.

I have written extensively elsewhere on my view of the governance of education in Canada.<sup>19</sup> I believe that more responsibility and accountability for teaching and learning needs to be centred on classroom teachers, principals and on local school councils (which would include parents), while responsibility for setting goals and assessment should remain at the provincial level. There also needs to be incentives for school systems to look widely throughout the world for the best ideas in mathematics, science and technology education as opposed to "reinventing the wheel" yet again in Ontario.

If the Commission is able to devise a new structure that enables change to take place in a more effective and speedier manner, then there is hope that many of the goals we all desire can be attained.

However, such a new governance structure for Ontario education must contain fundamentally changed features, of which the following are just a few.

- reconceptualized roles for all levels of government and for teachers and parents at the local level;
- a new system for translating publicly agreed priorities into educational standards and program guidelines;
- new systems of “carrots and sticks” — incentives for change and consequences of failing to change;
- a new balance of rights and responsibilities within the teaching and administrative professions;
- a philosophy of teaching which values results over process;
- improved and unbiased assessments to enable results to become well known at the provincial and local levels;
- a new approach to teacher education and the need for continuous growth on the part of teachers;
- a funding system that encourages innovation over maintenance of the status quo.

All of these changes will contribute to the likelihood that educational change will in fact take place. The lack of them could mean that, especially as financial resources become more limited, we entrench yet more into the “ways we have always done things.”

## **Conclusion**

Scientific Literacy for All is, in my view, an attainable goal. But its attainment will require the commitment of the educators and the public over a sustained period of time. It will require thoughtful direction and financial resources. If we achieve it, then the prospects for Ontario in the 21st century, both socially and economically, are excellent. If we fail, then Canada and this province will fall further behind others en route to becoming a “less developed country” whose main exports will be natural resources and skilled people. Given the alternative prospects, the goal must be affordable. Our children deserve no less.

## Endnotes

- 1 Science Council of Canada. *Science for Every Student: Educating Canadians for Tomorrow's World*. (Ottawa: Supply and Services Canada, 1984) p. 10.
- 2 For example, in the report of the Premier's Council, *People and Skills in the New Global Economy*, (Toronto: Queen's Printer for Ontario: 1990).
- 3 Throughout the paper, two caveats are important. First, in referring to "science," I intend that mathematics and technology be included. In some places, the composite term "mathematics, science and technology" will be used explicitly but throughout the paper its use is implicit. Second, while the focus of this paper is on science education, much of what is said is also relevant to other parts of the school curriculum and in this respect proposals should not be seen as exclusively relevant to science education.
- 4 Science Council of Canada. *Science for Every Student: Educating Canadians for Tomorrow's World* (Ottawa: Supply and Services Canada, 1984).
- 5 Economic Council of Canada. *A Lot to Learn: Education and Training in Canada*. Ottawa: Supply and Services Canada, 1992.
- 6 Economic Council of Canada, *op. cit.* p. 51.
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- 8 Archie Lapointe et al. *Learning Science*. Princeton, NJ: Educational Testing Service, 1992.
- 9 Archie Lapointe et al. *A World of Differences: An international assessment of mathematics and science*. Princeton, NJ: Educational Testing Service, 1989.
- 10 Ministry of Education. *Science in Primary and Junior Education: A Statement of Direction*. 1986.
- 11 Ministry of Education. *Science in Primary and Junior Education: A Report of Progress*, 1991.
- 12 Ministry of Education. "Provincial and international tests show need for change in math and science education" press release, February 5, 1992.
- 13 Benjamin R. Barber. "America skips school: Why we talk so much about education and do so little" *Harper's*, November 1993, pp. 39-46.
- 14 Toronto Board of Education, Research Review, December 1992.
- 15 Working papers from the Third International Mathematics and Science Study (TIMSS). These will be published as a TIMSS monograph on Assessing Math and Science Literacy during 1994.
- 16 American Association for the Advancement of Science. *Science for All Americans*, Report from Project 2061 on literacy goals in science, math and technology. Toronto: Oxford University Press, 1990.
- 17 Jennifer Lewington and Graham Orpwood. *Overdue Assignment: Taking Responsibility for Canada's Schools*. Toronto: John Wiley & Sons Canada, 1993.
- 18 Sheila Tobias. *They're Not Dumb. They're Different*. Research Corporation, 1990.
- 19 Lewington and Orpwood. *Overdue Assignment. op. cit.*



**Mathematics  
Teaching and Learning  
in Ontario**

**Susan Stuart**

January 1994



**Stuart, Susan.**

***Mathematics Teaching and Learning in Ontario, January 1994.***

***(L'enseignement et l'apprentissage des mathématiques en Ontario), janvier 1994.***

The purpose of this paper is to discuss elementary mathematics learning and teaching in Ontario. It outlines what learners should know about mathematics at the end of grades 6 and 9 and what educators and researchers have found learners do know about mathematics at these grade levels. Effective mathematical pedagogy recommended by leading researchers and mathematics educators are described, as well as current and acceptable evaluation strategies. Also this paper examines what students in Ontario do know about mathematics, what is important for them to know about mathematics.

Stuart's research has found that the teaching of mathematics in Ontario has changed little over the past thirty years. Moreover, students still suffer from mathematics anxiety, and many drop the subject as soon as they can. Stuart believes that an over-dependency on rote learning and a lack of understanding of the process of mathematics has contributed to its unpopularity among students, especially female students. Rather, teaching strategies should provide opportunities for students to consider new information, alternatives and approaches, and encourage students to reflect and reconstruct their thinking. The belief that the right answers are only known by the teacher and that mathematical knowledge is the property of experts also discourage students. New research about the teaching of mathematics and how students can best learn mathematics will enable school boards, schools and teachers to help students become true mathematicians. By employing equitable teaching strategies, technology, and a focus on conceptual development, all students can learn mathematics. "In the process, if students come to believe that mathematics can be a pleasurable, satisfying activity, we will have the mathematicians needed for the future growth of this province" (p.29).

\* \* \* \* \*

Ce rapport constitue une réflexion sur l'apprentissage et l'enseignement des mathématiques élémentaires en Ontario. L'auteure expose ce que les apprenantes et les apprenants doivent savoir en mathématiques à la fin de la 6<sup>e</sup> et de la 9<sup>e</sup> année, et ce que les éducatrices et les éducateurs et les chercheuses et les chercheurs ont constaté quant aux connaissances effectivement acquises à ces paliers par les apprenantes et les apprenants. Le rapport décrit des méthodes de pédagogie efficace des mathématiques recommandées par des chercheuses et des chercheurs de premier plan et des éducatrices et éducateurs en mathématiques. L'auteure décrit par ailleurs des stratégies d'évaluation actuelles et cerne celles qu'elle juge acceptables. Enfin, elle examine ce que les élèves ontariens savent en mathématiques, et ce qu'il est important qu'ils sachent.

Les recherches menées par l'auteure l'amènent à conclure que l'enseignement des mathématiques en Ontario n'a guère évolué depuis trente ans. Les élèves souffrent encore d'anxiété face aux mathématiques, et beaucoup abandonnent dès qu'ils le peuvent l'étude de cette matière. L'auteure estime que les mathématiques sont mal accueillies par les élèves (notamment de sexe féminin) parce que cette matière a été enseignée de manière trop mécanique, et aussi parce que les élèves comprennent mal le processus mathématique. Les stratégies d'enseignement doivent être revues de manière à donner aux élèves des occasions d'étudier des informations nouvelles, des solutions de rechange et des approches originales, et à les encourager à réfléchir et à repenser leurs idées. Les élèves sont découragés aussi par la croyance que seuls l'enseignante, l'enseignant connaissent la bonne réponse, et que les connaissances mathématiques sont la propriété d'experts. Grâce aux nouvelles recherches sur l'enseignement des mathématiques et sur les meilleurs moyens pour les élèves de les apprendre, les conseils scolaires, les écoles et les enseignantes et enseignants



seront en mesure d'aider les élèves à devenir de véritables mathématiciennes et mathématiciens. Tous les élèves peuvent apprendre les mathématiques, si l'enseignement est fondé sur des stratégies équitables, si les moyens technologiques voulus sont mis en œuvre, et si l'enseignement est axé sur le développement des concepts. « C'est en convainquant les élèves que les mathématiques peuvent être une activité agréable et enrichissante que nous formerons les mathématiciennes et les mathématiciens dont la croissance future de la province dépend » (p. 29).

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The paper will first consider what students in Ontario do know about mathematics, what is important for them to know about mathematics, how they should be taught and how their learning should be evaluated.

In order to make important decisions about the teaching and learning of mathematics in the Province of Ontario in the years leading into the 21st century, the Royal Commission on Learning should first be aware of relevant events that have occurred in the mathematics communities in North America over the last decade. These events have strongly affected beliefs about mathematics and mathematics teaching and should have an influence on Ontario mathematics classrooms in the future.

### WHAT DO STUDENTS IN ONTARIO KNOW ABOUT MATHEMATICS?

A variety of mathematics achievement tests have been administered to the students of Ontario to give the public, school boards and educators a sense of what students know about mathematics at various grade levels. Students have randomly been chosen to take part in international testing (IAEP, 1988), provincial reviews (1989, 1990) and national assessments (SAIP, 1993). Many school boards administer yearly system-wide mathematics assessments to all students in identified grade levels, commonly at the end of grades 6, 8 or 9, and 12. One purpose of these program assessments is to gather information about students' mathematical knowledge in order to make decisions about curriculum and instruction.

*Mathematics Grade 6: A Report for Educators* presented in detail the results of a provincial review of mathematics for Grade 6 which had been conducted in randomly chosen schools across the province in the spring of 1989. This review was also made available to school boards that wanted to carry out boardwide reviews involving all their teachers, students and schools. Sixty-one school boards took advantage of this opportunity to generate local data for their own use.

The report provided information on student achievement in the areas of arithmetic, measurement, geometry and problem solving (see appendix A). The results for individual items and for groups of items were then rated on a 5-point scale using the descriptors - superior, strong, satisfactory, marginal, and weak.

The report concluded that grade 6 students were achieving at levels that were rated satisfactory or better for the majority of the curriculum (p 63). A "superior" level of achievement was demonstrated in the use of data (Data Management), a "strong" level of achievement in arithmetic and 3-D geometry, and "satisfactory" in 2-D geometry and operations with fractions and decimals. The areas of concern were identified as measurement of area, volume and mass, concepts of geometry and motion geometry, and non-routine problem solving.

In April of 1993, Ontario participated in the School Achievement Indicators Program (SAIP) to provide the public with information about student achievement of 13- and 16-year olds in

mathematics content and problem solving. The graphs and summaries in the final report (SAIP, 1993) provide the reader with a comparison of provincial results to overall Canadian results.

It is reported that Ontario English-speaking 13-year olds achieved results in mathematics content that were not significantly different than the overall results for Canada. The results for problem solving were, however, lower than the Canadian overall outcome. The results in mathematics content and problem solving for 13-year old French-speaking students were both lower than the Canada-wide results.

A student's performance was measured based on five levels of achievement which ranged from elementary school (Level 1) to advanced secondary school (Level 5). The levels are described as follows:

**Content:**

**Level 1** - add, subtract, divide and multiply; use materials and diagrams to show simple relations; determine linear dimensions of simple plane figures; read information from simple tables

**Level 2** - use 4 basic operations; use patterns and classifications and plot points on a grid; calculate dimensions and areas of plane figures; classify solid forms and use geometric transformations; extract and represent data using tables and diagrams

**Level 3** - use 4 basic operations with integers; solve simple algebraic equations and plot points on a grid; use length, angle measure, area and volume involving plane geometric figures; calculate arithmetic mean and simple probability

**Problem solving:**

**Level 1**- find single solutions to one-step problems; use one case to establish proof

**Level 2** - make a choice of sets of procedures to find a solutions to multi-step problems and one-step problems; use more than one particular case to establish a proof; use common vocabulary to present solutions

**Level 3** - choose two sets of procedures to find a solution to multi-step problems; use necessary and sufficient cases to establish a proof; use mathematical vocabulary with little precision to present solutions

Students were assigned the level represented by the highest test booklet written in which they answered 60% of the questions correctly. Levels 1, 2 and 3 are the levels in which the large majority of 13-year olds achieved. From the brief descriptions provided, one would expect that a majority of students would achieve, in mathematics content, at Level 3 by the end of the Transition years (grade 9), because this level's content is "about 1/3 covered in grade 7, 1/3 in grade 8, and 1/3 in grade 9 (Ontario Fact Sheet, p.2). In the problem solving section of the test, questions at level 2 are described as testing material which is "about 1/2 covered in grades 7 and 8 and the 1/2 in grades 9 and 10." (p.2). It should be noted that many students did not have the opportunity to learn all the content because of the grade level in which it is usually taught. For Ontario, the approximate grade distributions of the students tested was as follows:

	Grade 7	Grade 8	Grade 9
English	6%	65%	29%
French	5%	68%	27%

At this time, detailed analysis of the assessment showing specific areas of strengths and weaknesses are not available. The only conclusion that can be drawn from the released information is that Ontario students (English) are achieving approximately the same in mathematics content as the rest of Canada. Problem solving is an area of concern. The results at this time do not give educators or the public enough information to recommend areas to change or improve on. Once item analyses are available, it may be possible to evaluate the needs of the students in the five content areas that were covered on the assessment (numbers and operations, algebra and functions, measurement, geometry, and data management and statistics), and in the many components of problem solving.

When all the results of the wide variety of achievement tests are compared, the picture is usually the same. Educators continually find that Ontario students have a solid knowledge of number operations, the highest results being with whole numbers, then computations with decimals and fractions. Results on the measurement, geometry concepts and motion items are generally weak, and problem solving, in particular non-routine problems, continues to be the area of most concern. Before drawing any general conclusions about these results, it will be important for those who are analysing the outcomes of the individual test items to look carefully at the items themselves. We can only observe, for example, that students do poorly on pencil/paper test items about area, mass and volume. It cannot be concluded that students would do poorly if required to measure actively. It is interesting to note that all the areas in which the pencil-paper test indicate weaknesses are topics which are usually covered in the classroom in an active mode, using manipulatives.

Although the content of the SAIP is consistent with the mathematics programs across Canada, it is a compromise of all the programs, making it impossible to assess all the topics that each province may consider important. It is also, like most standardized tests, an assessment which only focuses on knowledge and skills that can be tested using a pencil/paper format. School boards, educators and the public must find ways to assess other critical components of our mathematics programs:

- . ability to employ a variety of manipulative and pictorial representations to solve problems
- . ability to recognize the reasonableness of an answer and make appropriate adjustments
- . work effectively in a group to solve problems
- . use a variety of investigative and reasoning skills to explore mathematical problems independently and in groups
- . communicate mathematically in a variety of modes

## WHAT SHOULD ONTARIO STUDENTS LEARN ABOUT MATHEMATICS?

In January of 1989, *EVERYBODY COUNTS: A Report to the Nation on the Future of Mathematics Education* was released by the National Research Council in the United States, opening the door to a flood of documents that would call for major changes to mathematics teaching and learning both in the United States and in Canada. (NCTM, 1989, 1991; Rutherford & Ahlgren, 1990; NAP, 1990). These documents have helped educators, school boards and the public to rethink and redefine mathematics and the role of mathematics in our schools and in the future of our children. For the first time, the word numeracy became as common as the word literacy. The public and educators alike began to realize that to function effectively in today's world, it would be as essential to be numerate as it is to be literate. (N.R.C., p 7)

Later in 1989, the National Council of Teachers of Mathematics (NCTM) published a groundbreaking document, *Curriculum and Evaluation Standards for School Mathematics*. This publication, which took more than 10 years to complete, was created by thousands of mathematics teachers and mathematicians, not only from the United States, but from all provinces of Canada. *The Curriculum and Evaluation Standards for School Mathematics* was quickly accepted by educators, parents, and trustees as the leading educational change document and a model for all other subject associations. Many mathematics educators from Ontario had been instrumental in providing input to various



drafts of the *Standards* and they soon took on the responsibility of studying the final document when it was released and leading informational meetings to assist others in understanding its implications .

Although the recommendations for change contained in the *Standards* were generally accepted in this province, Ontario mathematics educators felt it was extremely important to describe a view of what constitutes effective mathematics education for their own province. Using the expertise of Ontario coordinators, consultants and classroom teachers, the NCTM *Standards* was adapted to the unique Ontario perspective. The booklet entitled *Focus on Renewal of Mathematics Education: Guiding Principles for the Early, Formative and Transition Years* was released by The Ontario Association for Mathematics Education (OAME) and The Ontario Mathematics Coordinators Association (OMCA) in the spring of 1993.

The *Focus* document describes the learning/outcomes that should be evident at the end of grades 3, 6 and 9 and these will be referred to throughout this paper when discussing standards of students' learning.

### **KEY COMPONENTS OF ALL MATHEMATICS PROGRAMS:**

Before any educational system decides specifically what mathematical concepts and skills elementary students should have at the end of particular grades, it must understand what today's mathematics is and what it is not. In the not too distant past, mathematics was thought of as the study of numbers and shapes. Elementary school mathematics programs reflected this, and were primarily designed to ensure that students had facility with computations. However, today's mathematics is defined as the "science of patterns and relationships" (Rutherford,1989; Steen, 1990; NRC,1989). Few elementary school mathematics programs reflect this new thinking.

Although mathematics is generally viewed by the public as static, being a fixed body of knowledge, it is dynamic, changing and growing at an amazing rate. (Steen, 1990) In the past 20 years, many new fields of mathematics such as statistics, control theory, and fractals, have been opened, affecting industry and the labour markets (OAME, 1993) Because of technology, the basis of this growth is not calculations and formulas, but the investigations of patterns. Students must know about number and shape, but their mathematical education must go beyond these fundamentals if they are to be prepared for the work-world of the twenty-first century. The issue is not whether our schools should teach mathematics fundamentals, but which fundamentals they should teach (Steen, p 2).

The *Focus on Renewal of Mathematics Education* accepts and recommends that Communications, Mathematical Reasoning, Problem Solving, Mathematical Connections, and Technology be considered the fundamentals of any new mathematical program in Ontario. These five components should be the building blocks of a strong, forward-moving curriculum that will prepare our students for the future. Each component will be explored in more detail.

### **I COMMUNICATIONS:**

Recent learning theories focus on the importance of social interaction among individuals (Vygotsky,1978; Bruner,1986; Fosnot, 1986,1991), arguing that children commonly learn by reflecting on and internalizing the talk that takes place between themselves and peers and between themselves and adults. Learning, therefore, takes place best in cooperative situations where students are able to discuss with their classmates and receive supportive guidance from the teacher. In this environment, students are able to "reflect on and clarify thinking about mathematical ideas and situations" (NCTM, p 6)

Commenting on the work of Ludwig Wittgenstein, Watson (1989) states that educators are deluding themselves if they think that mathematical concepts can be developed and appropriated without

using them in some “functional form of text” (p 27), which she describes in its widest possible sense, including arrangements of manipulatives, oral language, diagrams and written language. Watson goes on to say:

“Non-symmetrical communication is the norm in mathematics classrooms. Learners almost never communicate with each other using mathematical meaning, and the ways that teachers communicate with learners are stereotyped monologic demonstrations.... Yet dialogue is essential for the development of mathematical thought... In denying learners opportunities to work towards making mathematical meanings through dialogue we are denying them the opportunity to appropriate those genres of text which incorporate mathematical meaning.” (p 27)

Mathematics is a language, and to learn a language effectively students must be allowed and encouraged to use it to communicate their thinking. Communications must become an important component of all mathematics curricula.

## **II MATHEMATICAL REASONING:**

Much of mathematics was once comprised of drill and rote learning of algorithms. Thorndike (1922) influenced the curriculum to the point that almost all mathematics was subdivided into small segments (or *bonds*) to be drilled and practised until they were mastered. Even after the complete sequence had been committed to memory, students rarely understood the significance of what had been learned. Today, however, it is commonly believed that students need to be empowered to think critically and creatively (NCTM,1989). Leaders in industry and business have clearly stated that they will no longer employ people who simply compute correctly. They identified reasoning as a key skill - investigating, organizing, synthesizing and inferring. Becoming a confident mathematician depends on knowing and doing mathematics (O.A.M.E.,1993) rather than simply applying rotely-learned procedures and our programs must reflect this. Students at all levels should be asked to explain their thinking, defend thier answers and look for alternative solutions to problems. Developing classroom climates in which reasoning or thinking is valued more than the one right answer should be a major goal.

## **III PROBLEM SOLVING:**

The ability to reason is tied directly to problem solving, an area which Ontario educators believe should be the prime focus of all school mathematics programs (OAME, 1993). The technology of computers and calculators has freed students from the drudgery of long pencil-paper calculations. Classroom time, once spent primarily perfecting students’ mastery of computational algorithms, can be more effectively used to develop the skills of problem solving.

In a complete mathematics program, it is important for students to experience problem solving in three ways. They must learn **ABOUT** problem solving, investigating the skills and strategies that are used by good problem solvers; they must learn **THROUGH** problem solving, exploring new mathematical concepts within relevant, as opposed to, isolated settings; and they must learn **FOR** problem solving, participating in mathematical activities in order to become successful problem solvers in their daily lives. A program with a problem-solving focus will create students who can use appropriate calculations and thinking skills to become independent “doers” of mathematics (OAME, p 6).

## **IV MATHEMATICAL CONNECTIONS:**

Studying mathematics in isolation no longer makes sense in today’s mathematized world. The American Association for the Advancement of Science (1989) describes mathematics as the chief

language of science (p17) and discusses the firm relationship among mathematics, science and technology. *The Common Curriculum* connects these three curricular areas to form desired outcome statements. However, educators must be mindful that mathematics should not be linked to science and technology to the exclusion of others subjects. Students must view mathematics as integral to geography, art, music and physical education, to name a few. Connections also imply more than integration with other subject areas. Integration within strands of mathematics must become an important goal. Students must begin to see that all strands are interrelated, that one cannot measure without using number, that geometry and measurement should be explored together. Ideas should naturally flow from one lesson into another (NCTM, 1993) and mathematical concepts are linked to and supported by one another.

Connections should also be made between the three levels of representation, enactive (manipulative), iconic (pictorial) and symbolic (abstract) (Bruner,1966). Ideally, students should be provided with opportunities to progress through these levels of representation, forging strong understandings of each and their interrelationships. Mathematics, therefore, cannot be studied in isolation , but should be viewed by the teacher and the students as part of a total learning package.

## V TECHNOLOGY:

A person engaged in mathematics actively explores and creates patterns. Facts, formulas and memorized procedures have value only to the extent to which they support the mathematical activity in which the student is engaged. The effective use of calculators and computers will help to ensure that realistic problem solving becomes the focus of the mathematics classroom and that instruction continually emphasizes thinking and communicating, not merely calculating (National Research Council, 1990). Although it is accepted that basic computational skills must be known, appropriate use of technology in the mathematics classroom will ensure equal access to all mathematics topics to all students, regardless of their ability to memorize facts (Branca,etal,1992).

The results of The Ontario Provincial Review of Mathematics in 1989 indicated that few grade 6 students used technology in their mathematics classrooms.

### STUDENT RESPONSES: (Ministry of Educ,p 33)

	Occasionally	Never
How often do you use a calculator to do mathematics in class?	23%	68%
How often do you use a computer to do mathematics in class?	14%	79%

### TEACHER RESPONSES: (p 83)

Use of calculators	Use of computers
Rarely 64%	Rarely 57%
Never 17%	Never 18%
Not allowed 5%	Not available 5%

### PRINCIPAL RESPONSES: (p 70-71)

Reporting encouragement of calculator use for mathematics	Reporting use of computers for mathematics use
63%	89%



School policy on the use of  
calculator in mathematics

No Policy	63%
Not allowed	3%
Allowed,not provided	13%

As the responses indicate, calculators and computers were seldom used in the grade 6 mathematics classroom in 1989.

The results of the student profile questionnaires contained in the *School Achievement Indicators Program* (SAIP) released in November of 1993 create a different picture of the use of technology for 13- and 16-year olds. ( p 101, 102)

CALCULATOR USE	% OF 13-YR OLDS	% OF 16-YR OLDS
Never	10.6	2.3
School Only	13.6	11.4
Home Only	8.8	1.4
Both	67.0	85.0

COMPUTER USE

Never	84.5	86.7
School Only	6.8	7.0
Home Only	5.5	3.3
Both	3.3	3.0

We can see that students in the transition years and above are making more frequent use of calculators today than did the grade 6's of 1989.

Technology - calculators and computers- are here to stay. They will continue to improve, available in smaller,faster and less expensive models. Teachers and students at all grades must have access to appropriate technology (OAME, 1993) beginning with calculators. Studies have shown that extended, appropriate use of the calculator has not harmed students mathematics ability and, in fact, it is believed that it strengthens number sense and enhances problem-solving situations.

“Students who use calculators in concert with traditional instruction maintain their paper-and-pencil skills without apparent harm. Indeed, use of the calculator can improve student’s basic skills with paper and pencil, both in basic operations and in problem solving.”

(Hembree and Dessart, 1986)

More recently,the SAIP Report notes that there was no significant relationship found between the use of the calculator on its test and the performance for 13-year olds, but that the use of the calculator was related to higher achievement for 16-year olds on both content and problem solving (SAIP, p102).

In 1985, Ontario released guidelines for grade 7 to OAC mathematics which clearly supported the appropriate use of calculators, especially in problem-solving situations.In order for calculator use to be consistent across the province, it will be important for the Ministry and all school boards to adopt a strong policy that supports effective use of this technology at all grade levels, from Kindergarten to OAC.

Futhermore, the results of the SAIP clearly show that the computer has had little impact on the mathematics curriculum. (SAIP, p102) It will be imperative for the Ministry and school boards to

find effective means to make positive changes in this matter.

Once the foundations of a solid mathematics curriculum is established, understood and accepted by all, the pieces of the program, the content, can be decided upon. These are the “whats” that students will be communicating, reasoning and problem-solving about. For each part of the content, we want standards that will indicate what knowledge, skills and attitudes students should have attained by the end of a particular grade and to what depth they should have these knowledge, skills and attitudes.

## **STANDARDS FOR MATHEMATICS LEARNING:**

Since 1991, groups of teachers, consultants and coordinators from school boards across the province have met under the auspices of the Ministry of Education and Training to clearly define the expected mathematics outcomes for grades 3, 6 and 9. As a result of these deliberations, teachers, school boards and parents have had the opportunity to respond to two draft proposals. The final document, the *Ontario Provincial Standards of Performance for Mathematics: Ends of Grades 3, 6, and 9*, released in December, 1993, clearly outlines the expected standards for mathematics learning in Ontario. This document contains:

- \* Outcomes from the Common Curriculum
- \* Interpretations of the Common Curriculum outcomes to establish a common understanding of the basis for the standard
- \* Standards of Performance, provided as statements of performance in each of the four categories
- \* Sample Performance Indicators, offering details about performance within each category

The mathematics content is organized into the following 6 strands for the ends of Grades 3, 6, and 9:

Problem Solving and Inquiry  
Number Sense and Numeration  
Geometry and Spatial Sense  
Patterning and Algebra  
Measurement  
Data Management and Probability

The specific outcome statements (see Appendix B), referred to as “specific understandings and/or skills” (p 3) clearly define the expected behaviours of students at the end of grades 3, 6, and 9.

“The Standards of Performance describe high but reasonable expectations. An effort has been made to blend observations of current performance with desired performances, in order to set standards that are future-oriented but realistic.” (p 5)

In other words, the writers were aware of what students have shown that they can do in mathematics, and have written standards that would ensure improvement, and would not be impossible or improbable to reach.

## **HOW SHOULD MATHEMATICS BE TAUGHT: METHODOLOGY**

To understand is to invent.

-Piaget, To Understand is to Invent

Over the past two decades, research on rote-drill versus rational learning has supported the position that mathematics teaching is effective when underlying concepts are accessible to students. Once an understanding has been established, a reasonable amount of focused drills and practices can be

effective. However, deciding on the correct methodology for mathematics teaching is more than deciding if to teach understanding or when to drill procedures.

Accepting the position that the prime objective of mathematics teaching today is not to produce students who can only calculate using paper-pencil algorithms, but rather to graduate students who can confidently “do” mathematics and “think” mathematics, the methodology question becomes more complex. The way that mathematics is presented is one of the decisive factors that contributes to mathematics avoidance or participation.

New understandings of what it means to learn mathematics and to be able to think mathematically have been greatly explored in recent decades, both theoretically and empirically (Fosnot, 1989; Kamii, 1985; Labinowicz, 1980; Piaget, 1972, 1977; von Glaserfeld, 1983, 1990). Each of us makes sense of our own world by constructing new understandings when presented with an idea, an event or a relationship which doesn't make sense or fit our present understanding. The learning of mathematics takes on a totally different perspective when thought of in this way. Mathematics learning is no longer a simple recall of memorized facts and procedures. The power in mathematics resides with those students who have knowledge of process (Rogers, p.44). Mathematics, therefore, can no longer be taught using a mimetic approach where students are only required to commit new information to their short term memory in order to pass a test or complete familiar, already-practised examples. The teaching strategies chosen must provide opportunities for students to consider new information, alternatives and approaches. They must encourage students to reflect and reconstruct their thinking, letting go of the view that the right answers are only known by the teacher and that mathematical knowledge is the property of experts (Perry, 1970, 1981).

The components of essential mathematics discussed earlier in this report are the contexts in which true mathematics learning will take place. A transformed mathematics program will depend on a classroom teacher who ensures an environment where communications, reasoning, connections and relevant problem solving are an integral part of the day-to-day work of the children.

In order to create the best learning environments for our students, mathematics instruction should:

1. be organized around authentic learning opportunities. Such opportunities are engaging to students and allow students to build concepts rather than “cover” information.
2. include a variety of approaches, including individual study and investigation, group work to encourage peer interaction, direct instruction to help extend and focus student thinking, and whole-group discussions to encourage reasoning .
3. allow students to develop mathematical understanding at the manipulative, pictorial and abstract levels and strengthen the transition between the three representations.
4. allow the student to actively construct meanings and interpret these meanings in their own way.

These instructional parameters do not mean that the learning is unplanned. The problem-solving environment of the classroom must be carefully constructed by the teacher. Teachers select tasks that are designed to elicit the discovery of new understandings and connections, extend students' thinking or help them change their viewpoints (Schifter, 1993). The teacher must monitor small-group discussions and individual activities in order to be ready to intervene with probing questions that encourage reflection and deeper understanding. Rogers (1990) states that teachers share the journey of recreating mathematics with their students.

The use of manipulative materials should be considered essential in all mathematics programs in all elementary classrooms. Recently, two Ontario school boards have conducted studies that have strongly supported this proposal. The Ottawa Board of Education (OBE, 1991), in its study of gender differences in student outcomes at the grade 6 level, reported that girls in classes using appropriate manipulatives improved on all questions on a Spatial Awareness test from Fall to Spring.



Girls in classes without manipulatives improved on only half the questions on the test. The boys in the participating classes also showed more improvement than those not using manipulatives.

The Sault Ste. Marie Board of Education studied the effect of the use of manipulative materials and teacher professional development on mathematics achievement in primary children. Comparing post-study results of grade 3 students to system-wide results collected in 1984, 1985 and 1986, the study found that the grade 3 results had increased significantly in the areas of geometry and measurement. Results in most areas of arithmetic remained constant, even though the earlier testing had taken place in the fall of grade 4 rather than the spring of grade 3.

These and many other studies have shown educators that appropriate manipulatives are essential tools in any elementary classroom. Continued professional development will be necessary to ensure that teachers develop strategies to make effective use of the varied concrete and pictorial resources available to them.

In summary, *Focus on Renewal of Mathematics Education* (OAME, 1993) clearly describes teaching methodologies and behaviours that should receive decreased emphasis and those that should receive increased emphasis in a student-centred, developmental program. A summary of these have been included in Appendix C.

## **ORGANIZING THE CURRICULUM:**

The elementary mathematics curriculum has traditionally been organized in what is most commonly referred to as a “spiral” manner. This means that topics are introduced to students in their early years, and then are revisited each year, building on previous knowledge and extending learning to more complex levels of knowledge and skills. A spiral curriculum offers both positive and negative aspects to consider.

Organizing a curriculum in a spiral manner allows students to experience different mathematics topics, such as addition, at higher levels of difficulty as they develop socially, emotionally and intellectually. The curriculum provides repeated contacts with key ideas and skills in a variety of situations from year to year. However, each year the topics are revisited in greater depth and at a higher level. It also allows students to work each year on all of the topics in the mathematics strands to some extent. Using the *Standards* as the guide, School Boards can organize the mathematical content that they feel is developmentally appropriate to the intellectual needs and abilities of the students for each year.

A spiral curriculum which is less tightly wound than current practice (Jenson, 1990), would provide time for meaningful investigations, connections of topics and a wealth of problem-solving situations may then lead to true learning.

However, spiral curriculum, as it currently exists, may lead to a shallow, cursory treatment to mathematics topics. A look at board-generated curricula and commercial textbooks for elementary grade levels reveals that a large percentage of material presented each year is a repeat and review from the previous year (Jenson, 1990). Although the students are expected to learn new material about each topic, it is often a small percentage of the total. Large number of topics included at each grade level may result in a program which allows students very little time to construct sound understandings of major concepts. Our curriculum has become a ‘scope and sequence’ of fragmented pieces of mathematical knowledge, each of which could be taught in a single lesson or period. This organization does not allow students to develop a depth of understanding and may explain why many do not retain their learning into the next school year.

## HOW SHOULD STUDENTS BE ASSESSED?

Assessment is an integral part of the teaching/learning process. In order to respond effectively to the learning needs of students, educational systems must employ methods for finding out about, recording and reporting student progress.

Much has been written in the last decade about appropriate assessment techniques. As the public demand for accountability rises, there is a more pressing need to put into place assessment practices that reflect current understanding about mathematics and mathematics learning. Evaluation can be a critical component of reform or it can block implementation of reform (MSEB, 1993). If the curricula changes in both content and strategies, but the evaluations continue to assess skills and procedures that are only valued in the previous curricula, the actual classroom curricula will not change.

### CRITERIA OF GOOD ASSESSMENT:

Recently, criteria for good assessment was addressed by a working group, composed of representatives from a wide range of Canadian national associations with an interest in education. Their publication, the *Principles for Fair Student Assessment Practices for Education in Canada* (1993) highlights essential components of good assessments which are similar in nature to the NCTM Evaluation Standards (NCTM, pp189-248). They state:

Assessment methods should be appropriate for and compatible with the purpose of the assessment.

- a) Assessment should be aligned with the objectives and content of the curriculum and the instructional approaches used in the teaching should be reflected in the testing.
- b) Inferences drawn should be valid and not open to misinterpretation.
- c) More than one assessment method should be used to ensure comprehensive and consistent indications of student performance. These should include tasks that demand different types of mathematical thinking and assess the students' mathematical learning in different contexts.
- d) Assessment methods should be suitable to the backgrounds and prior experiences of the students. Consideration should be taken into account for such things as culture, developmental level, maturity, gender, ethnicity, special needs, etc. Just as students have varied learning styles, so they have varied testing styles that will best reflect their true abilities and potential.

The National Council of Teachers of Mathematics, in its popular *Mathematics Assessment: Myths, Models, Good Questions and Practical Suggestions* emphasizes that planning for authentic assessment can have a tremendous effect on education in the classrooms. What we show that we value in testing will be what is taught to the students - "What you test is what you get" (p 3).

### CLASSROOM ASSESSMENT:

Before deciding how to assess student learning in the classroom, it is important for the teacher to decide what should be assessed and why the assessment is being made. The goals of the assessment must be linked directly to the goals of the program and should reflect a wide range of achievements we value (Swan, 1993). Therefore, the mathematical knowledge, skills and attitudes of Ontario students should be regularly evaluated at the classroom level in the following areas:

- ability to reason mathematically
- growth in conceptual understanding
- growth in skills and procedural understanding
- ability to communicate mathematical ideas in a variety of ways

- ability to connect ideas within mathematics and connect mathematics with other disciplines
- ability to represent mathematical ideas in a variety of ways, including concrete, pictorial and symbolic representations
- ability to work cooperatively to solve problems
- tendency to display a positive attitude to mathematics and mathematical tasks

Assessment must also reflect the purpose, whether it be for diagnosis, grading, instructional feedback, program evaluation or determining general mathematics achievement. Each may require a different type of evaluation strategy.

A wide range of mathematical assessment techniques that allow evaluation of complex cognitive tasks and affective abilities have been researched and are recommended for classroom use. They include teacher, peer, self and group evaluations using strategies such as observation, individual conferencing, focused writing tasks, written tests (both individual and group), class presentations, extended project writing, journals, holistic scoring situations, standardized tests, and portfolios (OAME, 1993). No longer can we accept students' evaluation in mathematics based only on marks from written procedural tests. Results from such tests give the teacher, student and parents a very small portion of the picture about students' knowledge of mathematics. Formative, or on-going, evaluation should play a critical role in monitoring student progress, making instructional and program decisions, and reporting to parents. Assessment is not an event, but a natural part of instruction in the classroom. Assessment in mathematics should build children's confidence and competence. (Anderson, 1987).

Written tests should still be a part of the evaluation package, but should require students to do more than complete single-answer low-level skills questions. Such tests should focus on specific skills, conceptual development, explanation of strategies and reasoning, application of learning to new contexts, and integrating material (Herman, et al, 1992; NCTM, 1991). If concrete manipulatives, pictorial representations, calculators and computers are part of the program, they should be part of the assessment. Except if the test is to evaluate computational skills, the calculator allows students to concentrate on what really is being tested and allows for equity in achievement for all.

In order to grade the students' performances in the mathematics tasks that they are given, it is important to have standards for comparison. The *Provincial Standards: Mathematics* (1993) will be a key document for teachers to judge students' achievements.

Teachers and schools need to be supported by their school boards and parent groups in their effort to widen the scope of mathematics evaluations. School boards must provide their teachers opportunities to learn about effective instructional practices and must show that they value these practices and what they assess by developing reporting techniques that complement them. Parent groups must also begin to value mathematics, as opposed to isolated computational skills, and demand more than a letter or grade on the reporting form that may tell them very little about their child's mathematical abilities. Some school boards in the province are beginning to lead the way in exemplary evaluation practices (the Ottawa Board of Education and the Toronto Board of Education, among others) by developing detailed standards for students' knowledge, skills, attitudes and values, and developing reporting forms that reflect these priorities.

## EXTERNAL TO THE CLASSROOM

There are times when assessment by groups outside the classroom, such as the school system or the Ministry of Education are needed in order to conduct curriculum and program evaluation. These assessments can determine program quality, the success of change implementation and the attitudes that participants have toward mathematics and the mathematics program. Testing alone, however, cannot improve teaching or learning and one must be wary of those who claim that they will improve a system by measuring it. The function of system evaluation is to determine the strengths and



weaknesses by looking at a wide variety of components and then recommending ways to improve. These components may consist of: evaluation of student outcomes directly related to program, equality of access, availability of support and support materials, availability of appropriate technology, opportunities to learn, instructional methods and evaluation procedures ( NCTM, 1989). The type of assessment and what is done with the results of the testing will be the determining factors in whether there will be program change and eventual student outcome improvements. Improved assessment can lead to improved instruction and it can exemplify the new types of learning students must achieve ( MSEB, 1993).

System, provincial or national assessments, must evaluate the components of the mathematics program that are valued. Careful selection of the evaluation tool will be important to ensure that judgments are not based on standardized tests that emphasize students' abilities to memorize and reproduce facts, procedures and rules. A wider range of items which reflect varied abilities, knowledge and beliefs must be included so that a complete and true picture of the program can be formed (Herman, et al, 1992).

All stakeholders, students, teachers, parents and administrators, must play important roles in the assessment processes, whether it be determining what and who should be evaluated, creating the tool, evaluating the results, or deciding on the changes that should be made because of the outcomes (MSEB, 1993). In this way, a thorough and fair evaluation of our mathematics programs will result in changes that are necessary to ensure the best mathematics programs that are possible for all students.

A potential evaluation model of the process might possibly be:

#### EXTERNAL REVIEW

#### PROGRAM CHANGES

- Provincial level
- Board levels

#### PROGRAM SUPPORT

- Professional Development
- Materials  
(print, tech, manipulative)

#### FORMATIVE EVALUATION

- Program adjustments
- Teaching strategies adjustments
- Reporting to parents

#### SUMMARY:

In the midst of all the changes and improvements that the citizens of Ontario wish to see to their educational system, mathematics must stand out as a priority. Statistics have shown us that a very small percentage of students take mathematics at a higher level and that, for many, it remains a subject to be dreaded, endured when necessary and gotten rid of as soon as possible. When we look at our classrooms, we usually see mathematics being taught in the same way that it has been approach for years. Despite calls for changes and the public's belief that mathematics is being taught in new and confusing ways, most students are simply moving through textbooks, workbooks, or worksheets that, in content, resemble those found in classrooms thirty years ago. The widespread prevalence of 'math anxiety' and low math literacy among the general public shows us that the approaches that have been used are not working.

The years leading to the 21st century and beyond, however, are the most exciting for mathematics educators and mathematics learners than any we have seen in the past. It is time for positive change and we now have the knowledge about mathematics and how students best learn mathematics that can empower school boards, schools, and teachers to help students become true mathematicians. Mathematics no longer needs to be in the hands of the elite few. By employing equitable teaching strategies, technology, and a focus on conceptual development, all students can learn mathematics. In the process, if students come to believe that mathematics can be a pleasurable, satisfying activity, we will have the mathematicians needed for the future growth of this province.

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